

THE COMMERCIAL CAR JOURNAL

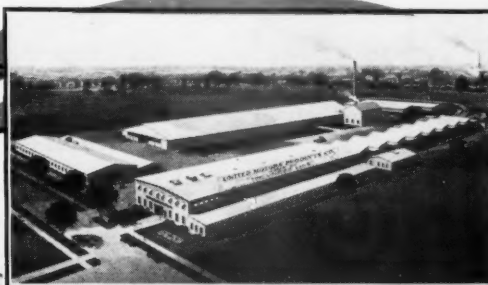
Volume XXX
Number 2

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PHILADELPHIA, OCTOBER 15, 1925

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Two Dollars a Year

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Since 1910



United

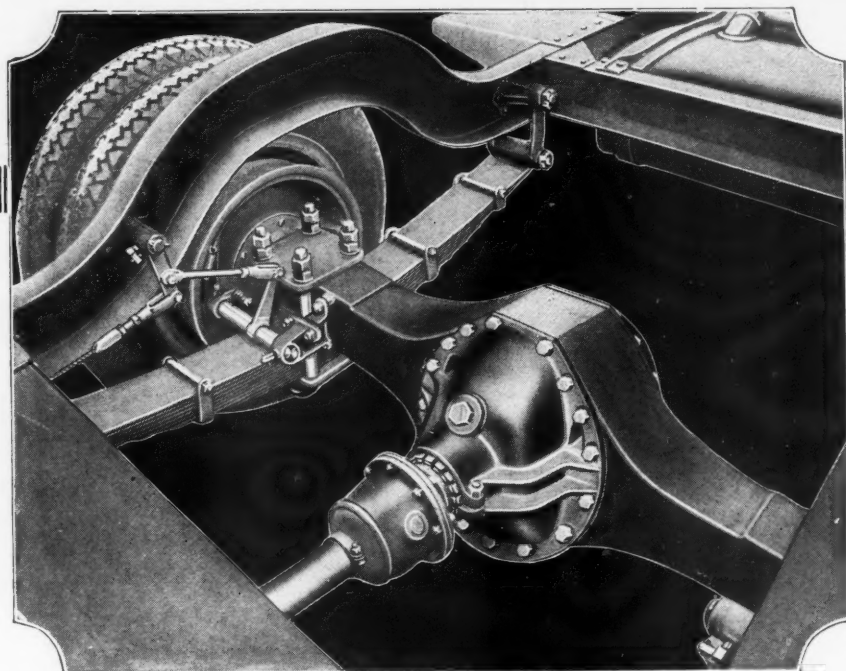
THE United franchise means success to the motor truck dealer because of

1. The high quality of the product.
2. The co-operative dealer policies of the company.
3. The attractive price.
4. The completeness of the line.

Dealers in territories where we are not represented will find it to their advantage to get in touch with us now.

United Motors Products Co.
GRAND RAPIDS MICHIGAN





Clark Bevel Drive
wide-tread axle
(B 720) as used
under 25-passen-
ger speed bus.

25-Pass. Speed Buses use Clark *Bevel* Axles

Bus and truck manufacturers have sought for years the efficiency, simplicity of parts, extreme lightness for given capacity, found now for the first time in the high speed wide-tread Clark Bevel Gear Axle shown above.

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Straddle Mounted Pinions

The pinion gear load on Clark Axles is carried between two annular ball bearings on what we term a "straddle" mounting—no "overhang" load.

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This type brake assures equalization of pressure on the entire periphery of the brake drum *plus* exceptional ease in removal and replacement for quick relining. Cast steel, high carbon, air-cooled brake drums.

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The heavier models carry dual wheel bearings, which eliminate pounding thrusts on the inner end of the drive shafts—they also permit closer bearing adjustment and give greater efficiency. Brakes are fully enclosed.

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The main axle housing carries the chassis load—so we make it of bottom-poured steel in our own electric steel foundry: Specially heat treated.

CLARK EQUIPMENT COMPANY
BUCHANAN, MICH.



THE PUBLISHER'S PERSONAL PAGE

In the Limelight Stronger than Ever

One of the biggest displays of motor buses ever staged greeted the visitors and members at the A. E. R. A. show and convention. Bus enterprise and development was pre-eminently evident everywhere. Even the convention chamber was pervaded with bus enthusiasm and recognition. Descriptions and discussions start on Page 7. This month's review supplements last month's pre-show review.

Taxation and What We Can Do About It

Taxes are exasperatingly tenacious. They are hung on us, relentlessly and unmercifully, from cradle to bier. The burden rarely lightens. But uncomplaining acceptance increases the burden onerously. The Automotive Excise Tax, for instance, exemplifies the results of peaceful submission. We still pay the tax. Read the article on page 12 and help shake off the Excise Barnacle. That'll relieve the load a little.

Just What is Truck Selling?

Why do some salesmen fail? To the failures only is transportation selling "All Bunk." How does analysis, responsibility, facts and dogged determination enter into the picture of the Success? What constitutes a sale? These all-interesting subjects are covered most ably in an article starting on page 16. No one is too successful to read it.

Motor Truck Industries, Inc. Program Making Progress

Considerable comment and interest is being accorded the standardization and interchangeability plan of the association. Next big meeting to be held in Washington upon the invitation of the Department of Commerce. Page 14.



There is no service where speed and capacity are more essential than in newspaper delivery

**INTERNATIONAL
TRUCKS**

THREE miles away, the mighty presses throb and roar. Newspapers are streaming out with incredible speed. The story of the game will be delivered at the ball park as the throng pours out.

News—"red hot" from the press—on tons of paper will be delivered ten miles away before the ink is dry.

Those tons of paper must be borne in and out of traffic with sudden flashes of extreme speed that test to the limit the pick-up, the flexibility, the power and endurance of the engine and of the entire car.

The speed truck that stands up in newspaper delivery service needs no additional praise.

Whole fleets of International Speed Trucks are in daily service delivering the news to an eager, waiting audience in almost every part of the country, and under the hood of every International Speed Truck is a Lycoming Motor.

LYCOMING MANUFACTURING COMPANY

Makers of fine Fours, Sixes and Eights-in-Line

WILLIAMSPORT :: PENNSYLVANIA

LYCOMING

Motors

Years Ahead in Automobile Motor Efficiency

THE COMMERCIAL CAR JOURNAL

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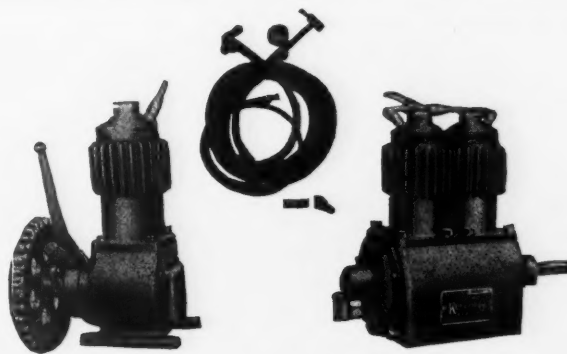
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Judge Kellogg by the Company it keeps

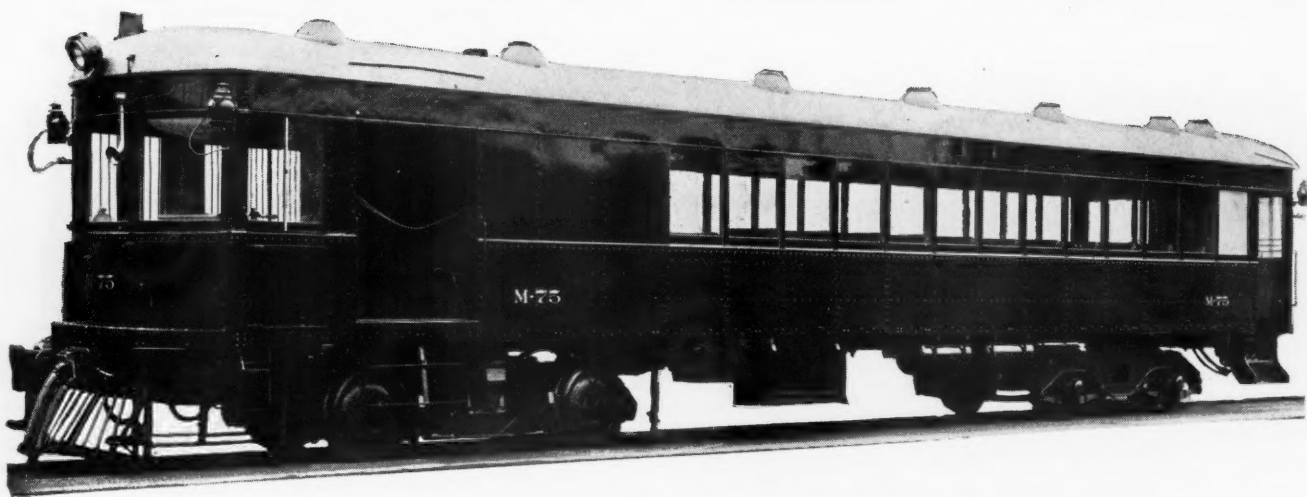
The fact that dealers for the following makes of trucks have found that they make and keep friends by recommending the installation of Kellogg engine driven tire pumps for every job they sell on pneumatic tires, is a positive indication that you can do the same thing.

USERS

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Advance Rumely	Guilder
American-La France	Hawkeye Dart
American Motor	Huffman
Body	Larrabee
Atterbury	Maccar
Biederman	Mack
Brockway	Maxim
Century	Minneapolis Steel
Clydesdale	Nelson
Coleman	Pierce-Arrow
Commerce	Republic
Corbitt	Ruggles
Day-Elder	Standard
Diamond T	Stewart
Federal	United
Four-Wheel Drive	White
Garford	Wichita
Gary	Winther
G. M. C.	Yellow Coach

KELLOGG MFG. CO.
Rochester, N. Y.

*Also manufacturers of air compressors
for service stations and air brakes*



Pullmans of the Highway and Buses of the Rails

Both must make schedules and make money.
Both are Timken-equipped.

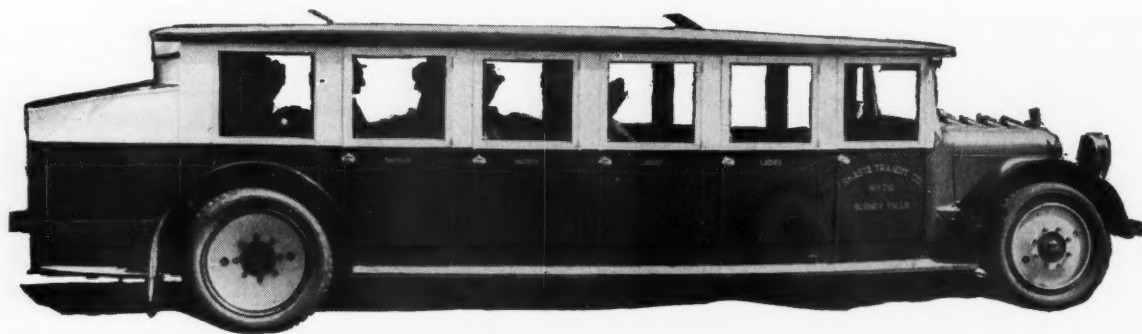
On Timken Tapered Roller Bearings motor
buses speed people over pavement, dirt, bumps,
and around curves.

On Timken Tapered Roller Bearings rail cars
speed people on steel track pounded by steel
wheels, forced around corners by steel flanges.

For Timkens none of the requirements are too
severe—indispensable endurance—high capac-
ity for shock, thrust and radial loads—utmost
freedom from attention.

For all transportation—Timken Bearings.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO



TIMKEN
Tapered
ROLLER BEARINGS



New Departure Ball Bearings

IF ever unnecessary attention and adjustment should be avoided, it is in commercial vehicles which only earn when they are running.

New Departure Ball Bearings have a life co-extensive with the truck itself. But even more important than that is the fact that during the use of a truck they will not wear to require adjustment.

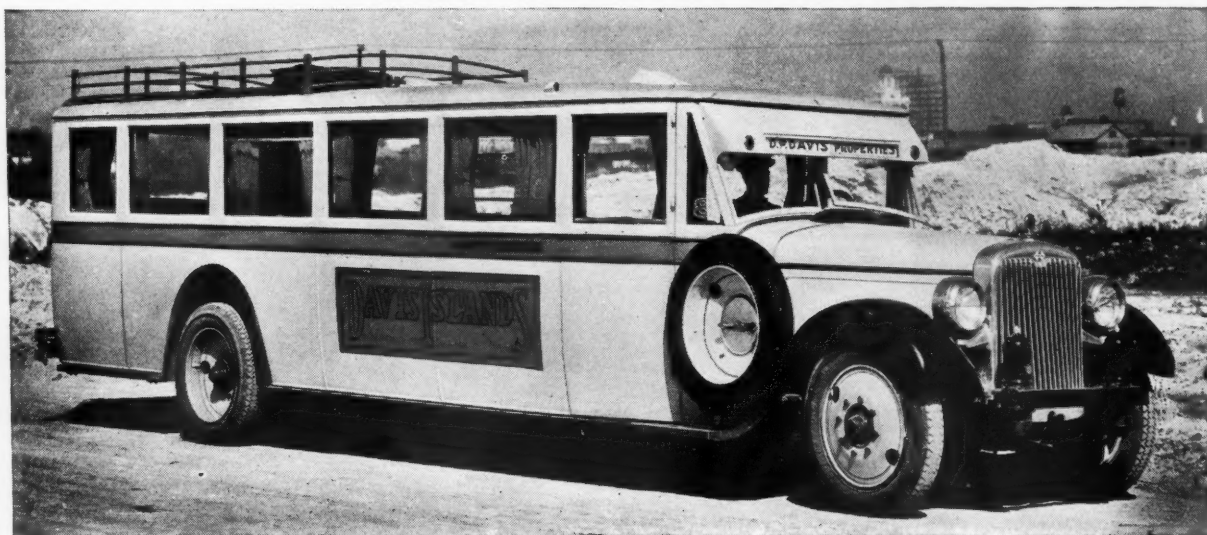
In most New Departure types, the bearings being of unit construction, have their proper running adjustment built in at the factory—a feature that insures against incorrect setting up when used for replacement purposes.

THE NEW DEPARTURE MANUFACTURING CO.

BRISTOL, CONNECTICUT

Chicago

Detroit



International Harvester *offers you both!*

MOTOR COACHES

the equal of any on the market, considered from every standpoint — mechanical design, beauty, comfort, safety, etc.

SERVICE FACILITIES

of an unequalled completeness, testifying to the many years of International experience in the automotive field.

THE same magnificent network of service maintained for International Trucks and called in our advertising in national magazines "The Largest Company-Owned Truck Service Organization in the World" also attends the operation of International Motor Coaches.

No less than One Hundred Eleven direct Company-owned branches safeguard the steady continuance of International transportation. The careful placing of unexcelled service equipment, in the hands of a skilled personnel, at 111 points over the United States, accounts in no small measure for the high reputation of International Trucks and Coaches.

Forward-looking dealers are identifying themselves with the International line of automotive equipment. A great field and a great future are ready for International Trucks, International Coaches, and McCormick-Deering Industrial Tractors.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave. OF AMERICA
(Incorporated) Chicago, Illinois

International 6-cylinder Motor Coaches are built, from the basic design to final appointments, for passenger transportation, risking no unwise compromises with motor truck construction. Write for information in detail.

International has 111
Company-owned Branch
House Service Stations in
the United States



The Commercial Car Journal

VOLUME XXX

PHILADELPHIA, OCTOBER 15, 1925

NUMBER 2



The Spotlight is on the Bus

Bigger Display Than Ever Greets Visitors and Delegates at the A.E.R.A. Show and Convention. Greater Attention Paid to Outfitting Bus Bodies. Eighty-seven Bodies and Chassis Shown. 8000 Delegates Registered

By ALBERT G. METZ

ATLANTIC CITY, N. J., Oct. 6—“It’s a real bus show,” was the comment expressed on all sides by delegates attending the annual show and convention being held by the American Electric Railway Association this week.

The total of exhibits on the pier and in the Shelburne Court tent is given as 204, of which the motor bus builders and motor bus equipment manufacturers represented 39½ per cent. This in itself indicates the tremendous strides which the motor bus has made in a comparatively few years. In all branches of service the motor bus is making tremendous headway.

More than ever before the tendency noted at the show lies in the direction

of better bodies and complete appointments. It is surprising also to find that buses representing the latest and most up-to-date developments of the body designer are offered at prices that make one wonder how the manufacturer can do it. But the reason for this is that the bus is no longer a small manufacturing proposition. It’s a real production proposition, consequently prices can be made more attractive. The advancement made in body construction cannot be conceived by anyone unless he actually has seen the many beautiful jobs that are staged at this show.

Maintenance Improvements

Improvements in chassis design are noticeable more from the standpoint of

better maintenance, instead of from a radical nature.

Greater attention has been given to comfort and attractiveness of body design, because it is realized that the attractive looking bus gets the business. One of the most striking things about the bodies is the color combinations which are offered. The “collegiate” idea has certainly gotten to the bus body builders as well as the trolley car painters. Whereas maroon, brown and green are usually standard colors on trolley cars, some of the new creations seen this year on trolleys certainly indicate that the trolley builders have taken a leaf out of the note book of the automotive industry. All shades of greys, creams and yellows, light colors in other words, were

put to good use. The snappy appearance of the buses was the subject of much comment.

Nickel plating is profusely employed on all coach hardware, making even the medium and low priced bus present a "million dollar appearance." But that is what counts today whether it is in operating motor coaches or trolley cars. Following railroad practice two pullman type observation cars were shown; four buses of the gas-electric type; one front wheel drive job; a six-wheel type and an eight-wheel model.

De Luxe parlor type coaches are much in evidence at the show. Improved seating arrangements, especially over the rear wheel housing were noted. Many buses were provided with luggage carriers on the roof of the body, with a step ladder arrangement at the rear for easy access. These carriers have substantial railings around them.

To make the seats over the wheel housing comfortable one maker uses a single upholstered wicker chair in the center while at each side there are longitudinal seats for three people. At the rear of the remaining seats are placed on the lower level.

In another body the floor is ramped back from the entrance door so that while the wheel housings are still in evidence their prominence is subdued. In an observation chair car the space over the wheel housing is used for luggage.

Another maker uses one single seat and one double seat over each wheel housing instead of double seats on both sides as in the rear of the car. These seats are set some distance in from the outside of the car so that the housings present no inconvenience.

Luggage Compartments

In most intercity buses special compartments are provided at the rear, for use in stormy weather when tarpaulins will not provide sufficient protection for luggage on the roof, and also for excess luggage. Nearly all of these compartments are equipped with folding seats of the type used in taxicabs so that they serve as passenger space as well.

Increased window space is noted on many bus bodies, many of them with such good results that the passenger's view is but little more restricted than in a phaeton body. Pillars have been narrowed to such an extent that doubt was

sometimes expressed as to the strength of the structure, and their number has been diminished so that there are several 20 to 25-passenger chair cars which have only four windows on each side between the baggage compartment and the windshield.

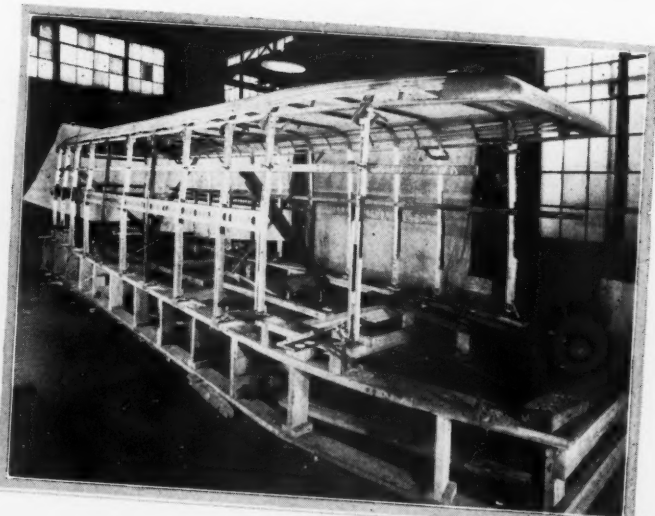
Ventilation has been given much attention. All parlor cars have from three to five roof ventilators of various types while the means of letting fresh air into the coach vary considerably.

One-piece windshields which can be slid upwards are employed to a considerable extent. A prominent builder uses stationary one-piece windshields with an adjustable opening across their tops.

Another uses a one-piece windshield which swings out from the body. Directly behind the opening is a glass shield which deflects the air above and below so that the direct breeze would not strike the faces of the driver or the passengers.

A number of other builders have placed ventilating holes at the side of the cowl. These are adjustable and provide fresh air when windows are closed. On another body front quarter windows are adjustable for ventilating purposes.

Wicker chairs with leather backs and



"Safeway" Six-wheel Double Decker

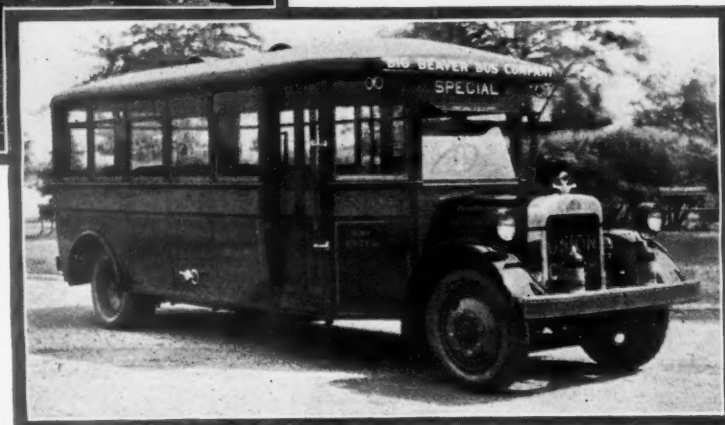
Interior and exterior construction of the new "Safeway" six-wheel double decker coach. The monitor construction permits keeping the overall height within reasonable limits and at the same time giving a fully enclosed upper deck. Note the upper deck seating arrangement for 30 passengers. This deck is heated. All seats are covered with genuine Spanish grain leather to match the Circassian walnut trimming.



Union 21-Passenger Bus With Bridged Rear Axle Construction

The Model EC Union bus chassis incorporates a patented bridged structure around the rear axle which permits the low frame height and a flat top frame. The top of the frame is 26 in. from the ground at the door and also at the rear axle with 32 x 6 in. tires under full load.

This Pay-Enter model has a 199 in. wheelbase and carries 21 passengers. It is powered with a six cylinder, overhead valve engine, having an S. A. E. rating of 29.9 h.p. Gross air springs are mounted on the front. Drive is taken through a multiple disk clutch equipped with 6 driven plates and 7 driving plates.



The body weighs 4,000 lbs. and incorporates Haskelite outside panels and inside panels. The roof is also made of Haskelite Plywood covered with a good grade of top material. The floor height is 73 in. Ventilation consists of two-side cowl ventilators which are water-proof and circulate air around the base of the driving compartment. Three metal ventilators are placed in the roof.

Studebaker Exhibits Six Body Type

A 21-passenger Street Car type of body shown to the right is one of the six body types shown by the Studebaker Corp. at the A. E. R. A. Convention. This body was built by the Auto Body Co., Lansing, Mich. On this body the carrying of a spare tire and wheel is handled by an outside door on the driver's side to a hidden compartment just in back of the hood.

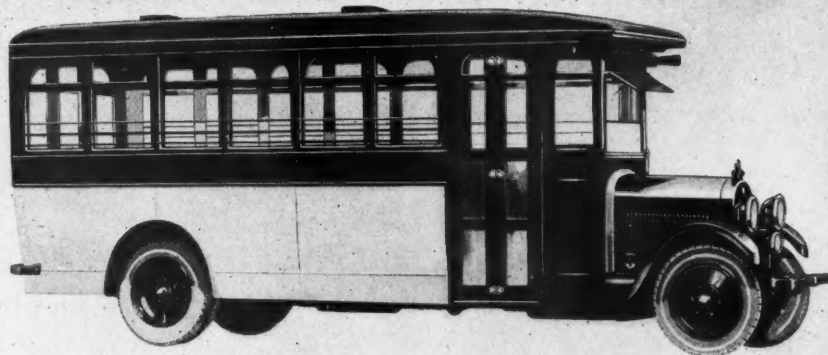
The head room inside of the body is 74 in. and the length from the dash to the rear end of body inside is 200½ in. This body includes an automatic windshield wiper, rear bumper, destination sign and inside rear vision mirror.



Studebaker is also selling a 158 in. chassis mounted with a 12-passenger cross-seat sedan and a 15-passenger cross-seat sedan type. It is also selling on the 184 in. chassis a 19-passenger cross-seat sedan, a 15-passenger individual wicker seat Parlor Coach and a 16-passenger front entrance highway De Luxe type coach.

Reo Pay-Enter Bus

The Reo 21-passenger pay-enter body exterior is finished orange and cream. The doors are mahogany finish and the interior woodwork and trimmings are also mahogany finish. Four-wheel brakes, a 3 3/16 by 5 in. six-cylinder motor, drive through a 13-plate clutch and a semi-floating type rear axle with nickel-steel spiral bevel pinion drive, and a front axle clearance of 8 1/4 in. are other features.

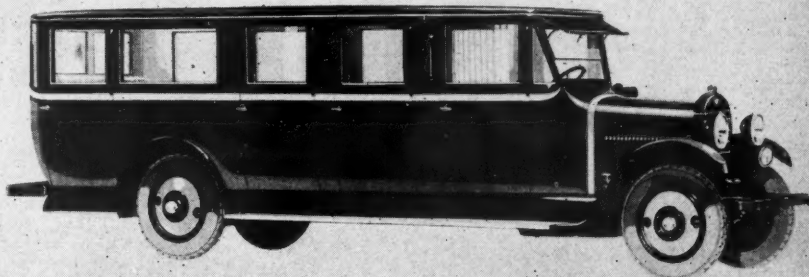


Reo Inter-City Coach

This is equipped with a separate smoking compartment at the rear which may also be utilized for baggage space. The jack-knife type of door and wide step make for quick egress and ingress of passengers. A two-piece windshield with a swinging upper half for ventilation, wide window spacing, and deeply upholstered seats add to passenger comfort.

Reo Sedan Bus

This 16-passenger body is especially adapted for cross country traffic and for special party work. The seats are upholstered in No. 1 machine buffed brown dual-tone leather, and the cushions are provided with high-grade springs. The driver's compartment is separate and sufficiently roomy for baggage space.



cushions are used extensively. Mirrors on body pillars are almost standard equipment. Silk draw shades hung on nicked rods are used on nearly every job. In at least two bodies solid walnut is used for the dash and all inside trim, and one maker offers walnut ceilings.

Street car body design has been considerably improved by eliminating congestion at the entrance. This has been accomplished in one case by mounting the door levers under the floor with the operating lever swinging somewhat like the emergency brake lever. In another body, the door is placed in back of the first window panel, thus giving an opportunity to use this space opposite the driver compartment for two seats. On one of the small bus bodies the door opens fully out at right angles to the body. Support at the lower end is on the running-board and on the upper end at the roof. This gives a full panel width of entrance of about 3 ft.

This year's progress in design includes greater use of air brakes, air cleaners, heavier frame construction, and units more suitable for the conditions met with in the frequent-stop bus service. Much improvement has been made in

providing comfort for the driver, but progress along this line cannot stop. When it is considered that some buses make thousands of stops a day, it needs little imagination to picture the energy that is consumed by the average driver in handling the bus when braking, shifting gears and opening and closing doors.

One large bus manufacturer claims to have solved the wheel shimmy problem by mounting the spring shackles at the forward end instead of at the customary rear end off the front spring. Uneven deflection of the springs, it claims, will not at high speeds have any effect on the front wheels when the springs are mounted at fixed points at the rear.

By mounting the rear axle at the extreme rear end of the frame, one bus manufacturer has eliminated body overhang on two of its small jobs. In addition it has gotten rid of the wheel housing problem.

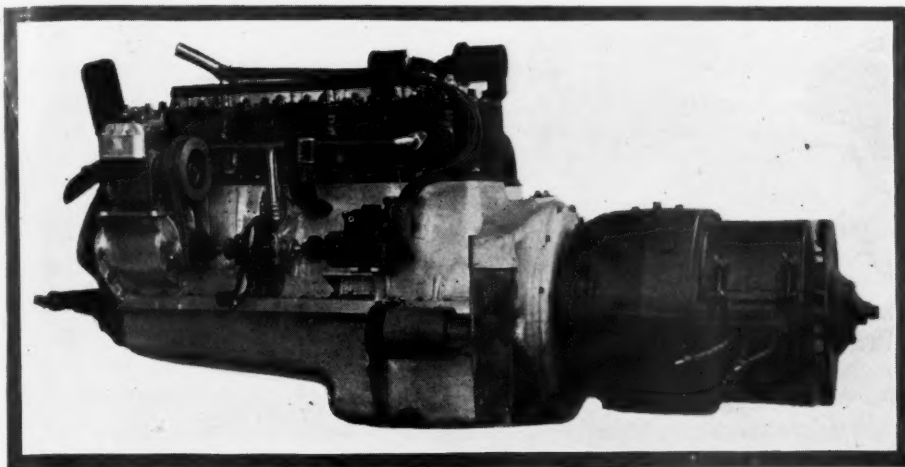
Acceptance Replaces Antagonism

THE Convention program opened Monday afternoon. The report of the Committee on Bus Operation, presented by its chairman, A. H. Ferrandou, indicated that the traction companies are no

longer antagonistic to the bus, and that real service to the public can only be given by co-ordinating the operation of electric trolleys and buses under one management.

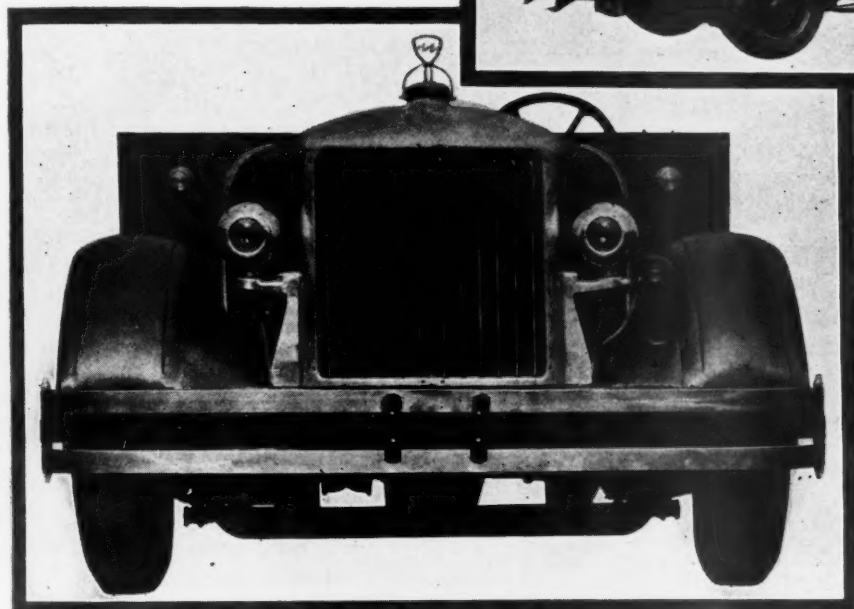
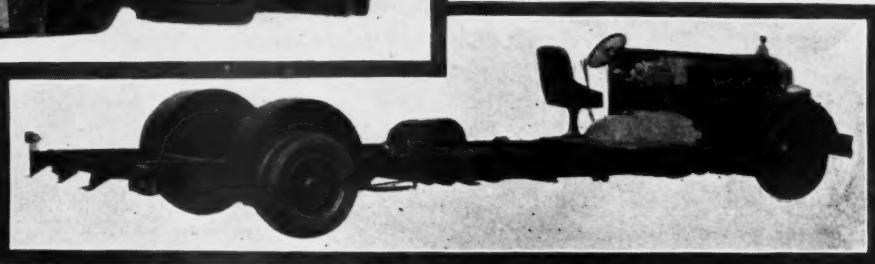
The discussion which followed stressed the point that traction lines which have not yet given the bus serious consideration should not stand idly by but get busy soon. One speaker made the statement that hundreds of thousands of dollars have been lost by traction companies and many bankruptcies have been caused by not considering the motor bus as a permanent unit in the general scheme of city transportation. The taxicab should also be operated by the electric traction companies, said one speaker, so as to complete the picture.

The question of recouping the loss of revenue which most traction companies have suffered as the result of privately owned passenger automobiles could be offset, said one speaker, by the hauling of freight especially on inter-urban lines. Formerly some of this was done as an accommodation to the public. It was pointed out that the railroads could not handle pick-up and delivery service, in other words store door delivery service,



Tilling-Stevens Gas-Electric Buses

Except for the English built electrical units, the Tilling-Stevens gas-electric bus chassis are an American product differing in principle from the General Electric's gas-electric drive buses in that the power is applied from a main electric motor through a propeller shaft to a conventional type of rear axle, whereas a separate drive in the form of two motors each connected to a rear wheel is employed on the G-G chassis. This new bus is fitted with Westinghouse four-wheel air brakes. Because there is no positive mechanical connection between the engine-generator unit shown herewith and the electric motor shown on the chassis which actually operates the bus, it is a simple matter to vary the wheelbase length to take different types of bodies.



Four or six-cylinder Waukesha high compression bus engines furnish the primary motive power. The electric motor which actually propels the vehicle is an exact duplicate of the generator, having the same degree of accessibility and approximately interchangeability of 90 per cent of the parts. By varying the speed of the engine through the usual form of accelerator pedal in conjunction with the variable resistance lever which regulates the field strength of the generator and motor, the output of the generator and consequently the speed of the vehicle is controlled.

without increasing their rates. If the work is undertaken by an electric railway it should co-operate with all the railroads entering the community. The work should be handled by contract instead of by the railways themselves because of the idle time involved which would make the enterprise a losing proposition in many cases. Furthermore the cost of such a service must be born by the shipper. The cost should be as low as possible and the project should not be gone into as a money making venture but for the purpose of giving complete service to the public. The good will and co-operation of the independent truckmen in the community must also be secured.

One speaker pointed out that bus operation by many street railways is not profitable, but that the losses are much less with buses than with electric street cars. In other words the bus reduces the losses on lines which must be maintained because of franchise privileges.

Opinion differs among the railway men whether bus lines should be expected to show a profit. Some companies, apparently, are using bus lines to build up a

community to a point where profitable trolley service can be established. Others are using buses only on those lines which must be operated in order to obtain a rounded out transportation system but which will not support trolley service.

The prevailing tendency seems to be to use buses for those border line routes where the question of operating profits is a matter of some doubt and utilize trolleys for the profitable runs. Buses are undoubtedly advantageous for this work but this condition must be realized whenever an evaluation is made of their value as an urban transportation medium.

Luxury Unwarranted

The street car type of bus was found to be satisfactory for most uses. For long interurban runs parlor car and sedan type buses are being used to a considerable extent for the urban use most companies do not feel that the public is willing to pay for the extra comfort. More attention is being given to the comfort of passengers but the additional expense of providing the luxury

and convenience of parlor cars was generally thought to be unwarranted.

In determining the views of companies toward the future of bus lines it was found that most companies consider them on the same basis as rail lines. Many bus lines are unprofitable but as a rule the companies have no intention of abandoning them. Instead they will try to make them profitable but even if this proves impossible they will be retained as feeders for more profitable lines. Other companies consider their bus lines as forerunners of future rail service and developers of territory and as such their operation, even at a loss, will be continued. Where bus lines are operated as an independent line it was thought that they should prove remunerative or be abandoned.

Opinion was divided over the use of de luxe type buses. Some companies believed there was a field for this type in urban transportation but the majority believed it should be confined to long interurban runs and simpler types of vehicles used for short lines. Opinions dif-

(Continued on page 60)

Let's Have Some Action!

THERE used to be a popular saying "that taxes and death are inevitable" meaning of

course that taxes and death were two things from which the average mortal had very little chance of escaping. He could possibly escape the taxes if he died young enough. But not so these days. He would have to die as an infant in arms to avoid taxes, but even then someone will have to pay taxes for him. The unfortunate infant must be buried. If someone takes the trouble to figure it out he will find that a few taxes have been paid to someone or other even in this transaction.

Bring Back the Old Days

There was a time when the business man could sit down for a few hours of an evening and figure out his taxes for the fiscal year just passed and still have time to take in a show or a movie. But these days the average business man needs a corps of assistants to carry out the job of computing his various taxes. He pays more for clerical help than the taxes amount to, while the government spends more money in collecting certain taxes than it receives in actual revenue.

And so the American business man has gotten into the frame of mind where he pays certain taxes not knowing just what these taxes are for. Of course this might seem like stretching a point but it's a fact. In fact the American business man has become so accustomed to paying a variety of taxes that he for-

Automotive Excise Taxes Can be Abolished if Everybody Does His Bit

gets just how, when and where, some of these taxes originated. He goes right on paying them

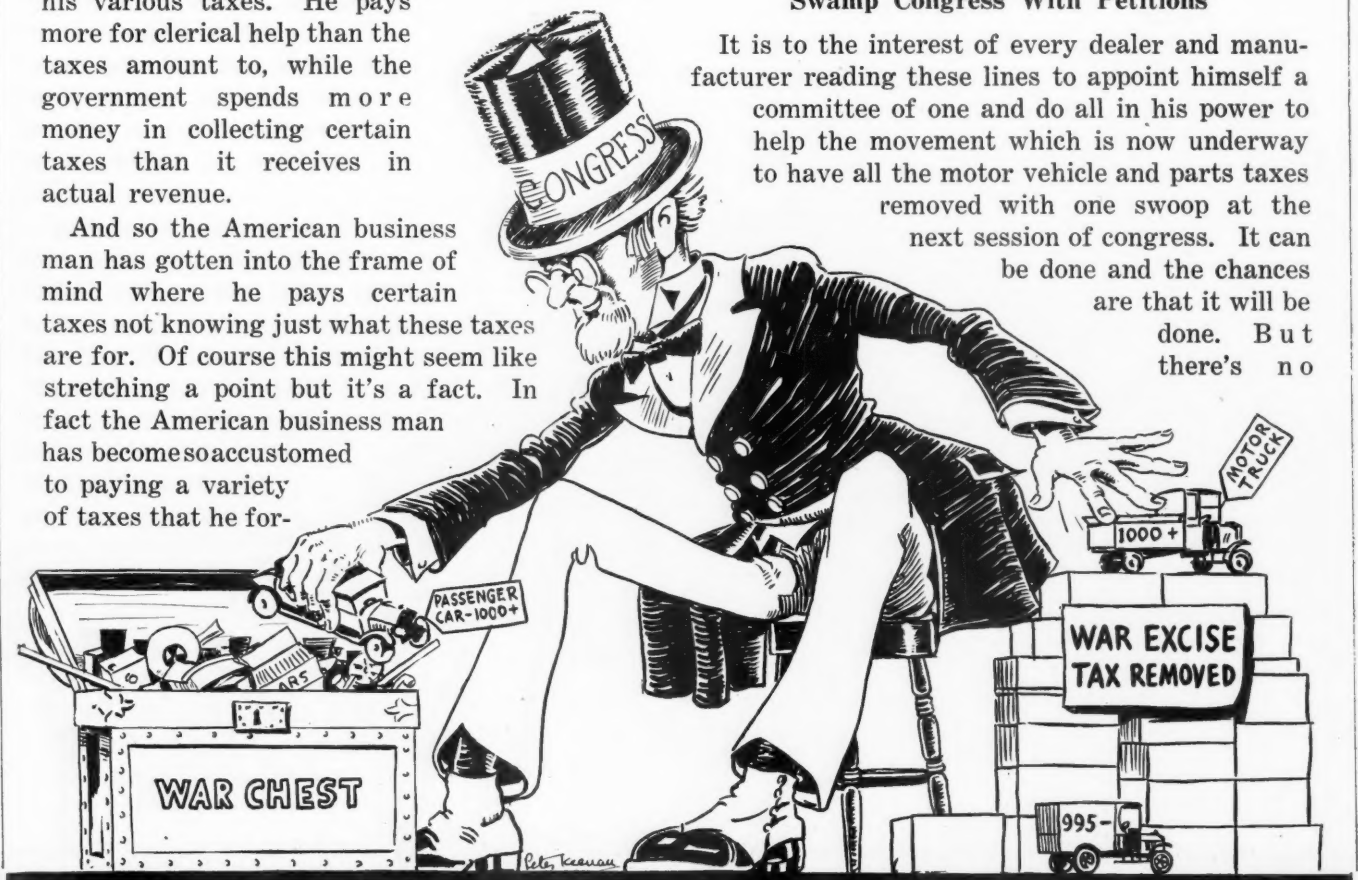
without making any effort to do his bit to eliminate them. He takes it for granted that someone else is on the job trying to get them repealed, so why "should he worry about it."

But that's a pretty expensive form of indifference that many business men pay for. That's just why the automotive industry is still paying taxes which were levied on it during the war.

It's a darn good thing that some organizations have been on the job, otherwise not any relief from these taxes would have been received. As a matter of fact the constant effort made in this direction by the national organizations representing the automotive industry has been responsible for the reduction of the so-called Federal Motor Excise Taxes, but there is still a lot of work to be done.

Swamp Congress With Petitions

It is to the interest of every dealer and manufacturer reading these lines to appoint himself a committee of one and do all in his power to help the movement which is now underway to have all the motor vehicle and parts taxes removed with one swoop at the next session of congress. It can be done and the chances are that it will be done. But there's no



use "counting chickens before they're hatched."

Just how this tax problem stands today will be related briefly.

Federal Motor Excise Taxes were first imposed as a section of the War Emergency Act of 1917, when a flat rate of 3 per cent was levied against automobiles and trucks. The year following the tax was raised to 5 per cent and a similar amount was levied against all tires, parts and accessories. No further change in rates occurred until 1924 when the tax on tires, parts and accessories was reduced to 2½ per cent.

At that time motor truck chassis having a wholesale value of \$1,000 or under and all bodies therefor having a wholesale value of \$200 or under were exempted. This exemption, however, did not apply to trucks that were priced over \$1,000 or on bodies costing more than \$200. There was no change in the tax rate on automobiles.

Right in the above paragraph there's a statement which needs some clarification, for the reason that many dealers and manufacturers do not seem to appreciate that they have to pay a tax which is manifestly unfair as it exempts the products of a few quantity producers and puts a penalty on the rest of the manufacturers.

It is this one feature alone which should be enough to make every truck dealer who is selling a chassis costing more than a thousand dollars wholesale anxious to do his part in helping to get this tax removed.

But in this tax elimination contest, every dealer and manufacturer should do his part unselfishly. Every dealer who sells an automotive product ought to help in this matter. Just because a dealer sells a truck that is tax free, is no reason why he should sit idly by and let the other fellow shoulder the burden. Perhaps he will need that dealer some day to help him on an issue which affects him as well as every other dealer in the business.

Just think of it. In the eight year period ending June 30, 1925, the Federal Government collected \$862,000,000 in excise taxes. Although the manufacturer paid the tax it was ultimately paid by the motorists. In 1924, six years after the World War the purchasers of more than 3,600,000 automobiles and trucks were reminded on their invoices that they still had to pay WAR taxes.

But this is not the only tax the owner of automotive transportation pays. He pays a gasoline tax (in 44 states); State title registration fee; State registration fee; State personal property tax, and so forth. It is not unusual for the motor truck owner to pay as many as seven different kinds of taxes besides those paid in common with all other citizens.

It is just as inconsistent for the Federal Government to re-

tain the War Excise Tax as it would be to levy a tax on railroads of 5 per cent for every new box-car they built, or for every new part of a locomotive, yet this is just what happens to the truck owner and motorists. No other industry in the transportation class, such as the railroads, steamship lines, telegraph and telephone companies, are paying war excise taxes now.

Therefore it is high time that the automotive industry, one of the most essential industries in the world today, should be relieved from those taxes which are not only discriminatory but entirely unwarranted. The inconsistency of eliminating taxes on trucks below a certain price ought to be cleared away by abolishing all excise taxes. The war is over.

The tax on parts, often referred to as a "tax on misfortune" also should be wiped out at the next session of Congress. This tax, which amounted to \$22,000,000 during the fiscal year of 1925, is nuisance tax pure and simple. This tax not only penalizes the truck and passenger car

WRITE TO THESE MEN

The Ways and Means Committee of the House

L. H. Hadley <i>Bellingham, Wash.</i>	J. N. Garner <i>Uvalde, Texas</i>	C. C. Dickinson <i>Clinton, Mo.</i>
C. B. Timberlake <i>Sterling, Colo.</i>	J. W. Collier <i>Vicksburg, Miss.</i>	J. J. Casey <i>Wilkes-Barre, Pa.</i>
H. W. Watson <i>Langhorne, Pa.</i>	W. A. Oldfield <i>Batesville, Ark.</i>	W. R. Green <i>Council Bluffs, Iowa.</i>
Ogden L. Mills <i>New York, N. Y.</i>	C. R. Crisp <i>Americus, Ga.</i>	W. C. Hawley <i>Salem, Ore.</i>
J. C. McLaughlin <i>Muskegon, Mich.</i>	J. F. Carew <i>New York, N. Y.</i>	A. T. Treadway <i>Stockbridge, Mass.</i>
C. C. Kearns <i>Amelia, Ohio</i>	W. P. Martin <i>Thibodaux, La.</i>	J. A. Frear <i>Hudson, Wis.</i>
C. R. Chindblom <i>Chicago, Ill.</i>	Peter F. Teague <i>Boston, Mass.</i>	J. Q. Tilson <i>New Haven, Conn.</i>
Frank Crowther <i>Schenectady, N. Y.</i>	H. T. Rainey <i>Carrollton, Ill.</i>	Isaac Bachrach <i>Atlantic City, N. J.</i>
	Cordell Hull <i>Carthage, Tenn.</i>	

(Continued on page 31)

Four Sizes of Motor Truck Chassis

Form Basis of M. T. I. Standardization Program

Next Meeting to be Held in Washington, Nov. 11-12. More New Members Secured. Buchanan Meeting Expressed Genuine Enthusiasm.



SOME FLOWER!

GRADUALLY and with absolute assuredness the standardization program which the Motor Truck Industries, Inc., started some months ago is beginning to crystallize into actual form. Naturally any undertaking such as this, which has for its object the elimination of unnecessary sizes in manufacture and interchangeability of units cannot be consummated in one swoop. It takes time and much detail work. It means conscientious and persistent effort by those interested in the enterprise. It's a big job and must be handled through various groups representing those parts manufacturers building the major units utilized in truck construction.

"This organization," says B. A. Gramm, of Lima, Ohio, secretary and treasurer, at the recent Buchanan meeting, "should not be regarded as a rival of any other, or as duplicating any work by any other. This is an association of executives, banded together for the fundamental interests of the motor truck industry, the user as well as the builder, and it means a great help to every association that has anything to do with motor trucks."

Nearly 100 truck and parts manufacturing executives gathered at the last conclave, which was proclaimed to be the largest and most enthusiastic so far held. The accelerating popularity and interest attending each successive meeting answers well for a rapidly successful career for the association and its commendable work.

The predominating feature of the meeting was the adoption by resolution by fourteen truck manufacturers the report of the ratings committee on the limitation of sizes to be built, as a basis for the different group committees to work on. The sizes are limited to four, namely: Fast freight class, 1-ton and 1½-2

tons; heavy duty class, 2½-3 tons and 4-5 tons. After the reading of its report, it was decided to establish "the Rating Committee" as a permanent body that will function as a guide to the various group committees in working out the standardization and interchangeability plan. The members of this committee and its co-ordinating committees are given below:

J. R. Spraker, Chairman, Atterbury Co.
A. S. More, Selden Truck Corp.
C. J. Helm, Acme Motor Truck Co.
Paul Moore, Garford Motor Truck Co.
Ollie Hayes, Republic Motor Truck Co.
Tom Lippert, Stewart Truck Corp.
M. E. Brackett, Clydesdale M. T. Co.
E. L. Atkinson, Lange Motor Truck Co.
Sidney Cook, Diamond-T Motor Car Co.

Motor and Motor Accessories Committee
C. D. McKim, Chair., Continental Motors.
Paul Moore, Vice-Chairman, Garford Co.
J. P. Mahoney, The Buda Company
H. L. Horning, Waukesha Motor Company
Chas. Balough, Hercules Motor Co.
Z. H. Whiteman, Jr., Lycoming Mfg. Co.

Axle, Wheels and Springs Committee
Col. Fred Glover, Chair., Timken-Detroit.
A. S. More, Vice-Chairman, Selden Co.
E. B. Ross, Clark Equipment Company
H. D. Mixer, Eaton Axle & Spring Co.
W. M. Jones, Sheldon Axle & Spring Co.
Walter E. Dugan, Shuler Axle Company
Mr. Rockwell, Wisconsin Parts Company

Transmission, Clutches, Controls, Transmission Brakes, Power Takeoffs, Etc., Committee

A. E. Parsons, Chairman, Brown-Lipe.
Ollie Hayes, Vice-Chairman, Republic.
Lawrence Fuller, Fuller & Sons Mfg. Co.
C. M. Gloetznee, Covert Gear Co.
A. R. Ford, Frost Gear & Forge Co.
Chas. Cotta, Cotta Gear Company.
K. A. Spurgeon, Muncie Gear Works
E. S. Eckstrom, Mechanics Machine Co.

Propeller Shafts, Joints and Bearings Committee

R. E. Carpenter, Chairman, Spicer Mfg. Co.
Sidney Cook, Vice-Chairman, Diamond T.
Mr. Mattingly, Blood Bros. Machine Co.
E. C. Eckstrom, Mechanics Machine Co.

Frames, Cross Members and Brackets Committee

R. E. Hayslett, Chairman, Hydraulic Pressed Steel Co.
R. B. Gotfredson, Vice-Chairman, Gotfredson.
C. A. Dana, Parrish Mfg. Company

Bodies, Dashes, Cowsls, Seats and Cabs Committee

Wm. Morrison, Chairman, Highland Body.
M. E. Brackett, Vice-Chairman, Clydesdale Motor Truck Co.
Mr. Morrison, General Body Corp.
Mr. Dewey, Wood Hydraulic Hoist & Body
Julius Heil, The Heil Company

Steering Gears, Drag Links and Controls Committee

Edw. A. Ross, Chairman, Ross Gear & Tool Company
E. L. Atkinson, Vice-Chairman, Lange Motor Truck Co.

The above committees are to be immediately organized for active work and inasmuch as the work of the association in this movement of standardization and interchangeability is in every sense a commercial one and not a technical one, the technical engineering part will follow after the committees have definitely decided on their reports.

H. L. Horning, representing the Society of Automotive Engineers, has tendered the entire service of the Society at any time to work out the technical end of this plan. Committees are also empowered to work with each other. For instance, the universal joints and the transmissions and axles will be deeply concerned regarding the stub ends as to their tapers, etc.

A thorough discussion was also had on Sales and Finance Plans relating to Motor Truck Industry, Inc., and a committee on Sales and Finance was appointed as follows:

C. J. Helm, Chairman, Acme Motor Truck Company
Tom Lippert, Stewart Truck Corp.
Mr. Brockway, Brockway Motor Truck Company
Mr. Bassick, Commerce Motor Truck Co.
C. G. Hayssen, Sterling Motor Truck Co.

The Next Meeting of the Association

It was decided to accept the invitation of the Department of Commerce and hold the next meeting of the Association in Washington, D. C. The two-day ses-

sion was felt to be necessary on account of the vast amount of work to be done. Mr. Hoover will probably be the principal speaker. Acceptance from Col. Chauncey B. Baker has already been received.

The following new members who were unanimously voted into the association at the Buchanan meeting:

S. K. F. Industries, New York
Maccar Truck Company, Scranton, Pa.
U. S. Light & Heat Corp., Niagara Falls, N. Y.
General Body Corp., Cincinnati, Ohio
Eaton Axle & Spring Co., Cleveland, Ohio
Zenith-Detroit Corp., Detroit, Mich.
Mechanics Machine Co., Rockford, Ill.
Covert Gear & Mfg. Co., Lockport, N. Y.
Brockway Motor Truck Corp., Cortland, N. Y.
Commerce Motor Truck Co., Ypsilanti, Mich.
Shuler Axle Company, Louisville, Ky.
Frost Gear & Forge Co., Jackson, Mich.
Larabee-Deyo Motor Truck Co., Einghamton, N. Y.
Lycorning Mfg. Co., Williamsport, Pa.
Gottfredson Corp., Detroit, Mich.

In addition the applications of the following were received pending acceptance at the Washington meeting:

Chicago Motor Truck Co., Chicago, Ill.
Wood Hydraulic Hoist & Body Co., Detroit, Mich.
Long, Mfg. Co., Detroit, Mich.
Hydraulic Pressed Steel Co., Cleveland, Ohio
United Truck Company, Grand Rapids, Mich.
Standard Steel Bearings Co., Plainfield, Conn.
Harrison Radiator Co., Lockport, N. Y.
The Crosby Co., Buffalo, N. Y.
Rome Turney Radiator Co., Rome, N. Y.

William R. Dawes, chairman of the Board of the Central Trust Co., of Chicago, president of the Chicago Association of Commerce and a brother of Charles G. Dawes, Vice-President of the United States, addressed the association on the subject of greater protection on loans. He commended the standardization work proposed and voiced the opinion that it would help both manufacturers and dealers, because it would result in better inventories and better credit. "The worst problem the banker has to contend with," said Mr. Dawes, "is to know what to do with the assets of defunct truck manufacturers. Bankers know how difficult it is to dispose of truck parts for which only junk prices can be obtained." He added that he believed there was an era of prosperity ahead, extending over the next four or five years, that there would be no money

How Standardization Affects the American Army

Definite steps are being taken by the engineering section of the Motor Transport Division, Quartermaster General's Office, to solve the big spare parts problem pertaining to the maintenance of army motor transportation in the field, according to Lieutenant Colonel W. F. Herringshaw.

"During the last war the American army had 216 distinct types of motor vehicles in the field which called for more than 453,000 different spare parts for their maintenance," said Colonel Herringshaw. "There are now only ten standard motor vehicles in the army and an effort is being made to reduce this number to five or six.

"The Depot Property Officer, Camp Normoyle, has on hand approximately 60,000 stock record cards that are necessary to keep the record of spare parts and supplies of stock on hand at this station for the maintenance of motor transportation in the Eight Corps Area one card is kept for each kind of part. This number will be reduced to approximately 5,000 with the adoption of the new standardization plan that the Quartermaster General is working on.

"Tests were recently made in Washington to determine the ideal military motor vehicle, and many of the best makes of commercial cars competed.

"In deciding upon the military types of motor vehicles, the interchangeability of spare parts was given careful consideration, for it was realized during the war that vehicles whose parts were interchangeable were of greater value.

stringency and no inflation. In conclusion he said that the manufacturer must plug leaks by more attention to minor business details, and that fair dealing, maintenance of the quality of the product, the acceptance of reasonable returns, and careful scrutinizing of credits would determine the results to be attained by the real business man. Touching on European conditions, he stated that American business men must accept the leadership there, if entire recovery is to be made.

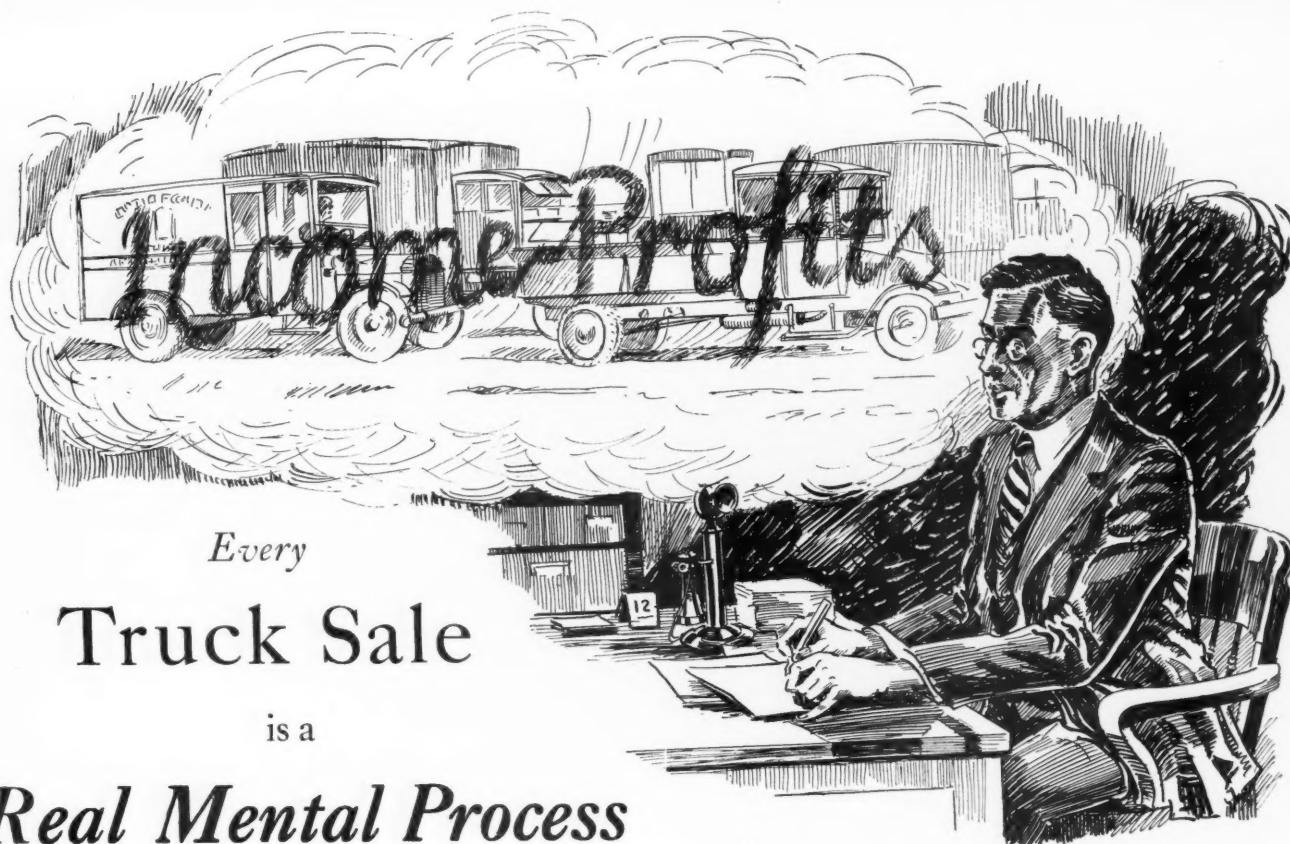
H. Colin Campbell discussed highway improvement as affecting standardization of automotive products. He compared the standardization program with the problems met with in the cement industry, and said that the portland cement business was now down to one standard. He called attention to the fact that 30 per cent of the cement now produced in this country goes into highways and said the use of motor vehicles had forced the building of better roads. He foresaw the construction of 6,000,000 trucks during the next five years because of these improved road conditions, and added that lighter trucks, twice the mileage, smaller automobiles and the great increase of closed car sales were direct results of improved roads. In conclusion, he commented on ill-advised taxes and the misuse of gasoline tax funds.

A report of the tax committee was delivered at this time by Robert C. Crowthers of the Gary Motor Corporation, of Gary, Indiana. A splendid report was made by Mr. Crowthers and the work of the tax committee was not only appreciated but continued, and it was decided that each member should see that letters were written to all of the congressmen and a plan of advertising and letter writing was gone into so that the removal of the tax on motor trucks and parts would soon be a reality.

On the motion of Colonel Fred Glover, a rising and enthusiastic vote of thanks was given to all of the officers and everyone connected with the Clark Equipment Company, for the magnificent treatment accorded everyone attending this meeting.



Members and Guests Who Attended the Meeting Held at the Plant of the Clark Equipment Company, Buchanan, Michigan



Every
Truck Sale
is a
Real Mental Process

Transportation Selling is Not "All Bunk"

By A. M. PEARSON

RECENTLY, a young man just starting to sell trucks wrote me, asking if I would tell him why I insisted upon everyone "selling transportation"; that it looked to him as if he sold trucks. He further stated that he had taken the subject up with a man who had been handling trucks for many years and that he told him it was "all bunk." My reply to my young friend is below:

My dear Jule:

It was good of you to lay the subject of "selling transportation" before me as you did. Because it gives me an opportunity to help you when you need it most, at the beginning of your truck career; moreover, I may be able to help your friend who thinks it is "all bunk."

In the first place, I want you to know that failure in truck sales, as a rule, is due to laziness, mental and physical. Truck sales talk is an easy language to learn. The hard part is to make the buyer understand it. The hard part is what the salesman sidesteps. Even when we go to him with helpful information, he rejects it, if it is not in some sort of a form like medicine which he can rub on or swallow, entirely depending upon a chemical reaction to boost him. The fact is that truck selling is a specialty. With it must go the information concerning its problems and the salesman must be prepared to take over this responsibility. Unless he has

schooled himself in the fundamentals of his profession, he can no more work out a sale correctly than he can put some figures on a blackboard and expect the solution to work out of itself.

It is universally known and accepted that every sale is a purely mental process; the movement of the goods bringing about a material demonstration of the mental effort. It is obvious then that the quality of the mental effort determines the quality of the sale.

A sale is composed of original thoughts possessing qualities of attraction and repulsion, like and dislike. As the favoring conditions ensue we transact the sale to a conclusion by the proportion in which attraction overcomes repulsion. The growth and development of the sale arises from the sympathetic power to attract interest and increase desire to own.

Beyond Two and Two—

Outside of deductive intelligence that is the power to put two and two together, thereby getting four, all knowledge is a matter of sensation or feeling. All action in a sale, radiates waves coincident with the nature of the action. These waves are received and understood by those whose minds (or receiving sets) are sympathetically in tune with the sender. In this way, the buyer dis-

covers and gains determination to buy. On the contrary, when the salesman evolves an erroneous thought, the wave injects a negative action and the mind of the buyer repulses it.

Everyone is more or less familiar with the functioning of the radio. Suppose you consider the mind as the receiving sets of seller and buyer and the ideas as the sound waves emanating from both parties to the sale. As long as the voice and the statements of the salesman are agreeable to the buyer, he listens and enjoys. The minute it grates upon him, he shuts off the instrument. Now, substitute thought or idea for voice and you have all there is to a sale.

Our sales are what we are. The brain cells evolve a thought (a mechanical process); the corresponding wave is injected into space and those with a sympathetic mind receive and interpret the wave. When thoughts are strong, true and bear analysis, they register. When they are weak, incorrect and filled with speculative discussion, they are thrown out and the static becomes stronger than the argument.

As a matter of fact, the real salesman, the true salesman, does not need to talk much, because there is a certain spontaneous birth of thought in the buyer's mind which is telepathic and instantly felt. This is called creating confidence; upon this basis the sale is made or lost, depending upon the true service of the representative.

I am forced to go into this meta-physical explanation because we are dealing in fundamentals, and a knowledge of fundamentals is a scarce article in the whole truck industry, I regret to say. But no matter what we do or what we say, we must get down to the primal truth or eventually fail. There is a right way and a wrong way. The wrong way can never succeed finally, because when something is wrong, it partakes of the nature of a lie, and a lie is an effort to make something out of nothing; an absolute impossibility. It therefore behooves us to sell trucks in the right way.

We should "sell transportation" because transportation is what we do sell, nothing else; any other statement is untrue. Without transportation there would be no truck manufacturer, trucks, truck salesmen, or any of the hundreds of activities surrounding the motor truck business. No one would dare to dispute this, nor can anyone prove that trucks make transportation, instead of transportation creating the demand for trucks. Trucks are a recent addition to economic life; transportation has always been present.

Transportation is Limitless

Moreover, just remember this: That transportation as an element, is limitless. It is as inexhaustible as the letter "A." No matter how many "A's" we use, we never have to borrow or look for more. For this reason, we may allow our thoughts to develop as far as we like on transportation; because there is always plenty of transportation to care for true creation, regardless of the size of the idea. Now, is not that a much better business to be in than one which is bounded by the dimensional outlines of a truck? Do you want to spread your arms and crack your knuckles against the wall, or spread your arms and develop your muscles? That is the difference between selling trucks and selling transportation and giving away the truck.

In the final analysis of any business, it must of sheer necessity come down to the subject of accounting. Some place along the line we must strike a balance between income and expenses. There can be no proper expenditure of money without a compensating balance of income return, whether it be in actual cash or service rendered. The buyer who is satisfied that he is getting proper returns for his investment has been sold on a principle that has no possible negative reaction and that is by far the best kind of a sale. A net sale through the money investment alone is limited to the dollars involved, whereas a sale through transportation service has many channels of expression.

Create True Impressions

The selling of transportation is no chimera. No one can deny that the purchase of a truck is buying so much highway transport. So when we sell on this condition, we produce true impressions and that is the type of sale which endures, creating what is termed good will.

Again, remember a motor truck is responsible for what it does, or what it should do, but it is not responsible for the lies told about it.

You are, of course, aware that transportation is an exact science, and like other true sciences, such as physics, chemistry, mathematics, etc., is governed by law; and the three basic rules of this law are known and simply defined. Let us then take these laws up separately and see if I cannot make you realize their tremendous unchangeable importance in your chosen work.

Geometry Helps

The first law is, "*A straight line is the shortest distance between two given points.*" This is very old and very obviously intended to point to the saving of time. Did you ever stop to seriously consider what time means in life? Did you ever thoroughly realize that there is nothing else to human existence but that which we call time and how we use it?

Take out your watch, Jule—note the flying second-hand as it moves over its

If you want your sales to come more smoothly and quickly, use less persuasion and price arguments: If you want fewer visits and greater satisfaction, you will find the creed below a real help and guide towards accomplishing these things:

TRUCK SALESMAN'S CREED

"No business means more for comfort and happiness—for progress and prosperity—than the business which sells transportation. Selling motor trucks is selling transportation—and the dignity of the job as well as the size of it—calls for men of knowledge and energy."

circular path, working off the infinitesimal fractions of time that make up the minute. Doesn't that make you stop and think? "Time," says Immanuel Kant, "is an artificial and arbitrary division of eternity." This terse, all inclusive sentence contains every element of human activity. The seconds, minutes and hours as we know time, is the fact which controls the earth and upon the use of the seconds it ticks off, depends success or failure of the individual; without time there is nothing.

As the years advance, it is evident that our lives become more mental, hence less physical. This simply means that to conserve our energies we must devise mechanical instruments for doing our work—to accomplish it more accurately and at a greater speed. The motor truck was not an invention—don't let anyone tell you it was. It was the natural evolution of the necessity of saving time and never could have been stopped from coming into our lives. We had reached the point where the number of people to be served and the distances involved in

our daily transportation, demanded a mechanical substitution for the physical effort of the horse. The motor truck was the answer.

Ready and Waiting

Considerable light is thrown upon the original importance of time through the wisely anticipated provision of nature with certain bonuses to help us save time. The equivalent to physical labor to equal the work of the motor truck would be beyond computation; moreover, the mechanical effort could not have been accomplished without gasoline. So nature long ago began the storing of liquid mineral oil in the inner crevices of the earth and when the time arrived, it was there ready and waiting for us to be converted into different types of fuel.

Since nature considers time of such supreme importance and provides ahead, it surely behooves us to use our intelligence to its utmost capacity, in employing the seconds allotted to us individually in the best possible way; not necessarily by working more hours each day, but by doing better work each hour we do work. There is no possible way to disturb the rhythm of time; second by second it clicks away so that we actually live at the rate of one second at a time.

Income Governs Expenditures

The second law is: "*The regular and precise balance between traffic income and operation disbursement.*" This, too, is a very simple rule. It means that you cannot possibly spend more than you take in without ultimate disaster. Now the strange thing about men who forget transportation and try to sell trucks alone, is that they must by reason of this method, talk only of expense and if there is any greater handicap to sales than talking expense, I have yet to find it. On the contrary, in selling transportation, the main sales theme is income and this is so alluring a subject that any prospect is at once interested, because we all want more money—not less money. The presence of a traffic income is a point which has been almost universally ignored. Yet, it is impossible to pay out money unless we take in money. It is evident then that we must first look to the income of a truck before we can properly adjust the outlay in operation; not figure on the expense and gamble on the income. Every truck privately used or in public service has an income and the expense of operation must not exceed this if we are to satisfy the owner; and the greater the income the greater amount of expense may be absorbed without disturbing the final contentment of the owner in his purchase.

Price Buyers Never Satisfied

This ignorance of income production has brought about the unhealthy condition of selling trucks on price. *The buyer on price never buys what he wants.* The purchase of a truck means the replacement of a sum of money with a mechanical tool for the purpose of transmuting truck energy into transportation, the office of which is to create

(Continued on page 60)

Delivery expense in some industries is increasing, but in others they are diminishing. Average business man a poor buyer of transportation, says expert.

Don't Sell the Owner A "Misfit"

By C. P. SHATTUCK

Staff of the Society for Electrical Development



SOME business men are concerned over the slice taken out of each gross income dollar by transportation and delivery by the motor vehicle. Some executives, believing that horses would be cheaper, say they would re-employ Dobbin were it not for the fact that the public is educated to delivery by motor power. Now such criticism is not new. Neither is it confined to any particular section of the country. Many business men will say, that motor delivery is too expensive, but—they will admit that it is a necessity.

Some Have Reduced Costs

Although distribution costs have risen with some concerns, there are thousands of business houses that have reduced delivery expenses. Generally speaking, whenever excessive delivery costs prevail they will be found due to:

1. Purchasing a motor vehicle instead of transportation and delivery.
2. Failure to analyze the delivery system before selecting the unit.
3. Buying the unit on FIRST Cost instead of ULTIMATE Cost.
4. Selecting too large or too small a unit.
5. Grossly overloading and speeding.
6. Lacking of proper lubrication.
7. Neglecting inspection, adjustments and minor repairs.
8. Employing incompetent drivers.
9. Inefficient loading and routing.
10. Too great a proportion of idle time.
11. Too high maintenance costs.
12. Lack of service facilities.

The business man can avoid excessive distribution costs if he will buy delivery instead of a unit; will analyze the re-

quirements of his transportation; purchase on what it will cost 5 or 10 years hence and select a unit adapted to the work instead of one with an attractive first cost. Those concerns employing units can effect a considerable saving by a careful analysis of items 5 to 12 inclusive.

Factors Responsible for Excessive Costs

Whenever excessive delivery costs are analyzed it will be found in the majority of instances that items 1 to 4 inclusive are responsible. In other words, the business man purchased what is known in transportation circles as a "misfit" and there are thousands of these in operation today. Business men, some of whom transact business on a narrow margin of net profit and pay a large proportion of their gross for delivery, are still buying misfits.

The business man owning misfit units is generally one who accepted cost figures and other data supplied by the seller and was influenced by an attractive price or liberal allowance for the vehicle traded in. While reputable dealers endeavor to sell transportation with satisfactory and economical service there is unfortunately another type of dealer specializing in price and rendering practically no service.

Many business men also purchase trucks because of the psychology of the motor vehicle. This general acceptance has been, and will be, responsible for high delivery costs until such time as the business man appreciates the fact, that he must give the same careful consideration to the selection, operation and maintenance of his delivery units as he does to the operation of his business.

There are, too, executives who will say they have no time to bother with an analysis of their delivery problem, yet these same men will complain of its high costs. Granted the busy executive cannot afford time to undertake an analysis but he can have one made and when the facts are laid before him, avoid buying misfits with accompanying excessive costs.

Reverting to the opening paragraph in this article that "horses would be cheaper." Invariably whenever this

statement is made it will be found to be general and not based on facts. Very few know their horse costs and still fewer have accurate records.

Distribution costs cannot be lowered without taking into consideration the real fundamental, ULTIMATE COST. And before the user of horses decides they are more economical than the automobile, gasoline or electric truck, he should first analyze his horse costs. Similarly, the user of automobiles should know if he could accomplish the same results and at less cost, with the horse. Neither the horse, gasoline nor electric truck is 100 per cent in every field. Each has its economic advantages in certain fields although it must be admitted that Dobbin is losing out in his last stronghold—short city haul with frequent stop delivery.

Check Old Against New

No business man can expect economical delivery, without comparing and checking the cost figures of the old equipment against the new. When both the buyer and seller are ignorant of the costs of the equipment to be replaced, a poor contrast results unless the equipment accidentally meets requirements. Many misfits are purchased because the buyer is not in a position to apply or check the cost figures supplied by the seller.

A careful buyer will check all figures submitted. If not in possession of costs of the present equipment he can either have an analysis made by someone in his own organization or check with users of similar equipment and employed under similar conditions. He has another alternative—requesting substantiation of the figures submitted.

Cost Figures Good Insurance

Completing the analysis within the organization is recommended as the possession of accurate figures is insurance against buying misfits. If, therefore, the analysis accomplishes no purpose other than acquainting the business man with his delivery system, and its cost, it will have done much.

One does not necessarily have to em-

ploy the services of a transportation engineer although certain vehicle manufacturers supply this service gratis. Irrespective of who makes the analysis it should be complete as to details and not overlook the small items. Appended hereto are forms which are self explanatory, of a cost analysis for the horse, gasoline and electric truck. No figure is set for the rate of interest on investment but the usual rate is suggested.

Depreciation rates, as shown here, have been expressed on a yearly basis. If desired, it is readily possible to express these charges on a per mile basis.

On Depreciation

Since electrics are assumed to have an average life of 10 years, the annual depreciation rate is 10 per cent. Gasoline trucks have an average estimated life of only 5 years so that the depreciation rate is double that of the electric or 20 per cent. Records are known of gasoline trucks giving good service after 5 years. Similarly, electrics over 10 years old are still performing economically.

Accurate cost records require compilation over a sufficiently long enough period to afford an honest comparison with others and to permit the factors of maintenance and overhaul to function. Some business concerns make the error of claiming low maintenance costs for the first year during which time a well designed, strongly constructed truck should require but little service. The overhaul and replacement parts periods, plus the time the truck is idle, eventually follows, contributing greatly to high ultimate costs.

Application of Costs

Possession of costs alone does not complete the picture. Costs must be carefully applied if economical delivery is to result. What the unit is to do and how it is to be done is most important. Consideration also should be given to the following factors:

Minimum and maximum miles per day, routes, average miles, number of stops, idle time (loading and unloading) minimum and maximum weight of load, cubic feet of load, ratio of running and standing time, road conditions, grades, etc. The mileage factors can be obtained by laying out the routes on a sheet map and measuring with a scale. The driver's estimate is not reliable, for invariably it will be too high. Weight of load can be determined by weighing the vehicle empty and with load. If no scale is available weight may be figured from the daily loading sheet. Data relating to load, stops, etc., can be secured by the use of drivers' cars as can also the operating hours.

A conventional form for the driver's report provides for the number of the unit, amount of oil and gasoline supplied daily, starting and finishing time, mileage, date and signature of operator. Space is provided for entering the destination of the load (weight or packages) also for remarks relating to the load and its delivery. The reverse of card supplies space for the driver's ex-

(Continued on page 31)

INVESTMENT

Horse and Wagon

Horses @
Wagons @
Harness @
Blankets @
Land, stable
Alterations
Equipment
Tools
Parts

Total

Gasoline Truck

— Ton Chassis @
— Ton Chassis @
— Bodies @

Land, garage
Alterations
Equipment
Tools
Parts

Total

Electric Truck

Chassis @
Chassis @
Bodies @

Land, garage
Alterations
Equipment
Tools
Parts

Total

DEPRECIATION

Horse

Stable, 5 per cent
Harness, 20 per cent
Wagons, 10 per cent
Equipment, 10 per cent
Total

Gasoline Truck

Garage, 5 per cent
Trucks, 20 per cent
Equipment, 10 per cent
Total

Electric Truck

Garage, 5 per cent
Trucks, 10 per cent
Equipment, 10 per cent
Total

OPERATION

Horse

* Wages
Feed
Board
† Rental
Grease
‡ Lighting
Washing
§ Sundries
Total

Gasoline Truck

* Wages
Gasoline
Oil
† Rental
Grease
‡ Lighting
Washing
§ Sundries
Total

Electric Truck

* Wages
Current
Grease
† Rental
‡ Lighting
Washing
§ Sundries
Total

* Drivers, helpers, loaders, extra help, etc.

† Vehicle hire or delivery expense when horse or truck unable to work.

‡ Fuel for lamps, wicks, repairs, replacements, acetylene, etc.

§ Sundries, driver's and helper's expense, ferriages, tolls, telephone, telegrams, etc., and expense not included under operating.

REPAIRS or VARIABLE EXPENSE

Horse

Wagons
Painting
Harness
Shoeing
Veterinary
Medicines
Stable
Total

Gasoline Truck

Chassis
Painting
Parts
Body
Tires
Batteries
Garage
Total

Electric Truck

Chassis
Painting
Parts
Body
Tires
* Batteries
Garage
Total

* Should include interest on investment, depreciation, solution, repairs and water. Battery is generally purchased separate.

OVERHEAD CHARGES, Fixed

Insurance

Stable
* Wagons
Equipment
Theft
Liability
Taxes on Land
Taxes on Stable
Total

Garage

* Trucks
Equipment
Theft
Liability
Taxes on Land
Taxes on Garage
Licenses
Total

Garage

* Trucks
Equipment
Theft
Liability
Taxes on Land
Taxes on Garage
Licenses
Total

* Fire only.

OVERHEAD CHARGES, Variable

Light
Heat
Power

Water
Telephone
* Labor

† Office
‡ Supplies
Total

* Washers, sweepers, watchman, doorman, mechanics, etc.

† Salaries of clerks, stenographers, telegrams, postages, stationery, advertising, etc.

‡ General, such as anti-freezing solution for gasoline trucks, tire chains, tow ropes, tying ropes, horns, lamps, bulbs, etc., articles and material to be replaced from time to time.

Adapting the Trailer to the Load

Thirty Distinct Types Now in Use. Some "Freak" Bodies for Special Needs

By HENRY M. WOOD

MOST discussions of the advantages and economies of commercial trailers stress the value of that transportation unit in the matter of mobility and capacity. Motor transportation users and experts all recognize and accept the fact that the trailer can be freed from its tractor, and the tractor put to other services, while the trailer is being loaded or unloaded, gives that equipment important advantages over the unit whose motor is attached. Another established fact is that a semi-trailer-tractor unit bears its weight on six wheels, and that a four-wheeled trailer hitched to a truck bears a double load in tandem makes for advantages in the matter of capacity over the hauling unit which carries its weight on only four wheels. **But there is still another convenience—a paying convenience—which the commercial trailer brings with it—its adaptability to the type of load to be carried.**

The statement can be more clearly illustrated by the use of examples. Today a builder is confronted with the problem of transporting long and heavy girders. Yesterday his task was the hauling of brick. Tomorrow his transportation units may be required to carry plate window glass. (The items are taken more or less at random without reference to a specific problem.) If he were to provide separate units—with motive power for each—he would require a large initial investment. Assuming that for the best results he would need a different type of body for each service, his expense would be tied up unavoidably with a much greater expense for motive power. For each truck he must invest in a motor.

The cost of the proper bodies would be a minor item compared with the cost of the motors. And even if he decided on the investment he might have difficulty in obtaining bodies suitable to his pur-

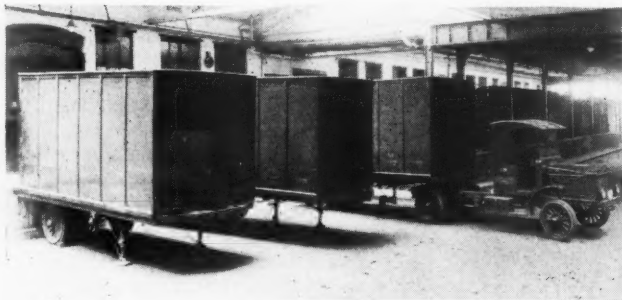
poses. He might want a low-slung carrier for his plate window glass—a very inconvenient sort of a body to get in a truck.

It would require a special chassis. And since the successful operation of the truck manufacturers' business depends on standardization of construction, the contractor would be forced to pay heavily for the deviation from normal that he demanded.

Where Trailer Adaptability Enters

However, if he attacked the problem from the trailer angle, his troubles would be minimized. Here the motor is detached anyway. He will not need to invest in a motor to handle each trailer. And the cost of alterations in the body of the trailer will be small by comparison with the cost of alteration in the chassis of the truck.

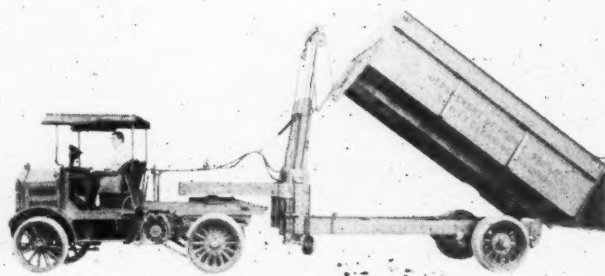
He may have his underslung body—and hitch it to his tractor in exactly the same



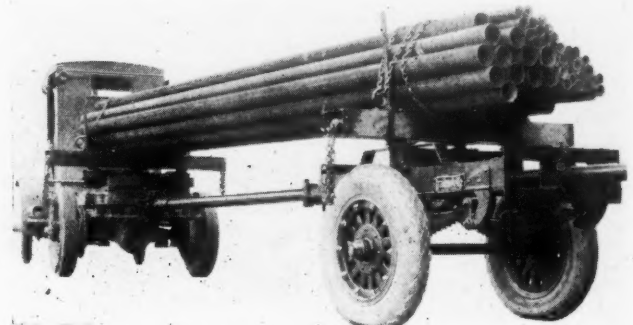
Semi-Trailer With Special Type of Body Used for Inter-Plant Hauling



Special Type of Body Provides Extra Large Loading Space for Handling Light Bulk Loads



Ten-Ton Semi-Trailer for Transporting Special Large Hydraulic Hoist and Dump Body



Pole Trailer With a Load of Pipe Which is Not Haulable on a Truck

way he would hitch any other trailer. He may design his body for bricks—or equip it with rollers for lumber—or add to his installation one sufficiently long and strong for transporting girders. In fact he may provide himself—at a comparatively negligible expense—with bodies suitable to the various needs of his business, and with enough detached motors (or tractors) to handle his schedules.

He may very easily find, for instance, that one tractor can keep one trailer of every type that he uses, busy. To illustrate, assume that he has three trailers of girders, three for lumber, three for brick, three for loose stone and dirt—and three tractors. Today his three tractors are hauling his three trailers loaded with lumber on a job. Yesterday they were carrying loose dirt and stone. Tomorrow they may be at work with the girders—and the following day hauling brick.

Equipped to Meet Any Need

In the very much simplified illustration, two types of trailers are not required during the same period—termed “a day” in the example. But very probably the three tractors would be able to perform the work suggested, with a little thoughtful consideration of schedules, for the reason that one tractor would probably be enough to handle three trailers. While trailer number one was being unloaded at the scene of operations, trailer number two would be returning to the source of supply, where trailer number three would be in process of loading.

While the illustration is a simple case, it nevertheless suggests a great deal. It says, for example, that twelve perfectly adapted units can be had for less than

the cost of twelve imperfectly adapted units. It says that the motive power of those twelve perfectly adapted units costs about one-fourth the price of the twelve imperfectly adapted units (three tractor motors serving the trailers as against twelve truck motors).

Principle, the Big Point

And it does not say—what is nevertheless a fact—that the pay load which may be carried on the six wheels of the tractor and semi-trailer is something like twice as much as is allowed by the safe weight limit on the four wheels of the truck. It suggests the results to be expected from an application of the semi-trailer principle to actual cases.

The examples suggested are truly simplifications. They are not, however, theoretical in any sense. They have had, and continue to have demonstrations in experience, as the accompanying illustrations bear forth.

Manufacturers of trailers have come to regard “vocational uses” of trailers as an intimate part of their business. There are something like thirty distinct types of trailers which the specific needs of industries and business require—representing almost as many occupations. And they are as diverse as the needs of the Oil Driller, the Nurseryman, the Automobile Manufacturer, and the Public Service Corporation.

They may vary in capacity from the trailer designed to carry so heavy a load (road construction machinery) that it had to be equipped with extra wheels to bring it within the safe load limits of the highways to the train of small municipal dump trailers that wind their way through the

city streets at an early hour of the morning.

The specific problem which faces the hauler is to design a body that will most efficiently meet his needs. The expense of carrying out the design is so small that it is quickly covered by the saving in service.

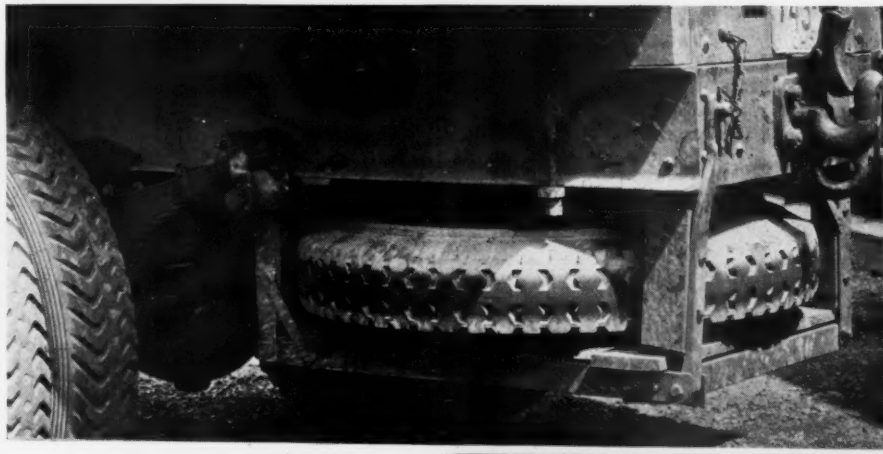
N.S.P.A. Convention Date is Deferred

Board of Directors Puts Off Meet to Nov. 16-18; Sherman House Chosen

The date for the National Standard Parts Association Convention and Show was deferred from Nov. 5-7 to Nov. 16-18, by action of the board of directors last week. The show will be held in the new Annex of the Sherman House in Chicago, instead of in the Coliseum as originally planned.

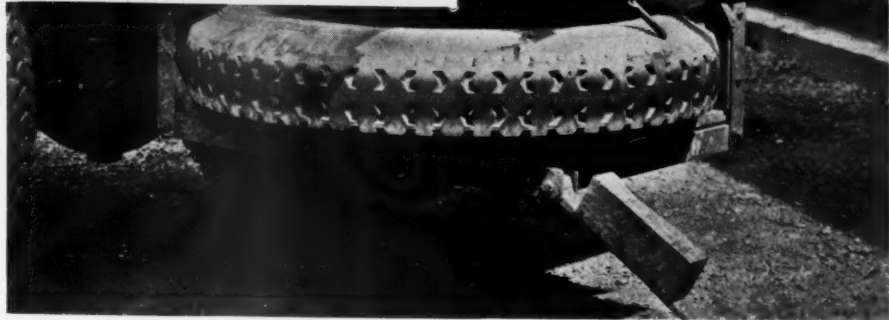
There are available 91 show spaces in the Sherman Annex and these 70 have already been contracted for, according to C. B. Frazer, manager of the show, who says that enough requests are already in his hands to assure every space being taken before the opening day.

The new dates for the National Standard Parts Show place it after instead of before the show of the Automotive Equipment Association, scheduled for Nov. 9-14 at Chicago.



Eliminate Chafing

Carrying the spare pneumatic tire on a truck without danger of chafing and in an accessible position is often quite a problem. The Clarke Transportation Co. of Cleveland have solved it by making light angle-iron carriers lined with wood as shown in the picture. When the tire is inserted and the fourth corner hanger closed and locked, the tire cannot possibly move



The Proper Way to Mount the Spare

Right of Manufacturer to Retain Title to Vehicles Sold Dealers for Resale

The Various States Are Not in Accord on the Question. And Since Sales Policy Should be Based on the Laws of the States Entered the Subject is Deserving of Careful Investigation

By LESLIE CHILDS

THE question of when, and under what circumstances, a manufacturer of motor vehicles may retain title to vehicles sold to dealers for resale is one of interest and importance to motor vehicle manufacturers in general. This is true because, if the manufacturer by retaining title to the vehicles he sells dealers for resale, can thus protect his accounts, even though the cars pass into the hands of third persons, he may obviously reduce his risks on accounts of this kind in a material way.

As may be expected, the question has been the subject of considerable litigation, and the court decisions upon it are not in accord. In some cases it is held that a manufacturer cannot retain title to property sold to a dealer for resale, and enforce his title after such property has reached the hands of innocent purchasers.

On the other hand, there is a line of decisions holding that where a manufacturer has sold property to a dealer and retained the title, which has been recorded according to law, the purchaser of such property from the dealer will be deemed to have had notice of the title of the manufacturer, and the latter may enforce his claim against the property in the hands of such purchaser. As an example of the reasoning followed in the last named cases, the recent Maryland case of Finance & Guaranty Company vs. Defiance Motor Truck Company, 125 Atl. 585, is worthy of review by manufacturers in general.

Manufacturer Retained Title

In this case the Defiance Motor Truck Company was engaged in the manufacture and sale of motor trucks, and sold a certain truck to the Allegany Motor Company, the latter being a licensed automobile dealer located at Cumberland, Maryland. Upon delivery of the truck there was a balance due of \$1,975.54, to secure which, the parties executed a conditional sales agreement, whereby the title to the truck was to remain in the Defiance Motor Truck Company until this sum had been paid. This agreement was duly recorded with the clerk of the circuit court of Allegany county, as required by the Maryland statute.

Following this the Allegany Motor Company placed the truck in its sales

room and sold it to one Parsons, the latter defaulted and the motor company regained the truck, and sold it to one Whitacre, retaining title, which it assigned to the Finance & Guaranty Company. Whitacre defaulted and the Finance & Guaranty Company took possession of the truck.

Protection Against Defalcation

Now, it appears, the Allegany Motor Company had defaulted in its payment of the Defiance Motor Truck Company, and the latter sought to regain possession of the truck by virtue of its title retention contract. With this in view demand was made upon the Finance & Guaranty Company for the truck. The latter declined to surrender the truck on the ground that it was an innocent purchaser for value without notice of the Defiance Motor Truck Company's lien, and could not be affected by the agreement between the Defiance Motor Truck Company and the Allegany Motor Company.

The Defiance Motor Truck Company thereupon brought the instant action in replevin to regain possession of the truck. The trial of the cause resulted in a judgment in favor of the motor truck company, and the case was taken to the higher court on appeal. Here in reviewing the Maryland statute which provided that the recording of a conditional sales contract should constitute notice to third parties of the lien of the seller, the court in reviewing the contention of the Finance & Guaranty Company, in part, said:

"The appellant, (Finance & Guaranty Company) however, while it concedes that the statute is valid, and that it applies to this particular transaction, contends that the appellee (Defiance Motor Truck Company) is estopped from relying upon it because, he says, it delivered the truck to the Allegany Motor Company for resale, and thereby conferred upon that company such obvious and apparent indicia of unconditional ownership that it was thereby enabled to sell the truck as an unconditional owner thereof to an innocent purchaser, who relied, and was entitled to rely, upon the apparent title which the Allegany Motor Company had in the property."

In replying to the above contention the court said:

"The weakness of that proposition lies in the fact that it ignores the statute, which charges the appellee with constructive notice of the agreement, whereby the title to the truck was reserved to the appellee. For it is axiomatic that the constructive notice afforded by recording statutes is equivalent to actual notice, as to any instrument recorded in compliance with their terms. * * *

"And if the purchaser had notice of the existence of the conditional agreement, he also had notice that the Allegany Motor Company, notwithstanding its possession of the truck, was not the unconditional owner thereof, and it is not apparent in that case how the appellee could be estopped from asserting a title of which he had given public notice in the very manner provided by the law. * * *

"We have no difficulty in reaching the conclusion that the appellant in this case was charged with notice of the conditional sales agreement under which the Allegany Motor Company gained possession of the truck, and that when it acquired the truck appellant took it, subject to the rights reserved to the appellees under that agreement. * * *

In conclusion the court affirmed the judgment rendered by the lower court in favor of the Defiance Motor Truck Company. Holding, as outlined in the opinion, that the recording of the conditional sales contract was notice of the lien, and that the acquirement of the truck by third parties did not affect the right of the Defiance Motor Truck Company to enforce its lien against such parties by retaking the truck.

Deserving of Investigation

As noted in the beginning, the courts of the various states are not in accord on the question involved, and any sales policy undertaken would necessarily have to be based on the laws of the states entered. However, in view of the credit benefits to be derived by a manufacturer from a sales policy based on the retention of titles, it would seem a question deserving of careful investigation as different states were entered. And in states, as Maryland, where the laws would permit the operation of such a sales policy its institution would no doubt tend to reduce credit risks in a substantial manner.

Why Paint the Lily?

September 15, 1925

Attention:

One of the original fleet of the old Cleveland Akron Bus Company was Bus No. 16. The chassis was one of the first White model 50's sold.

GRUSS TWINS were installed on the chassis March, 1923—November 1st, 1924, finds this bus with a mileage record of 112,015 miles.

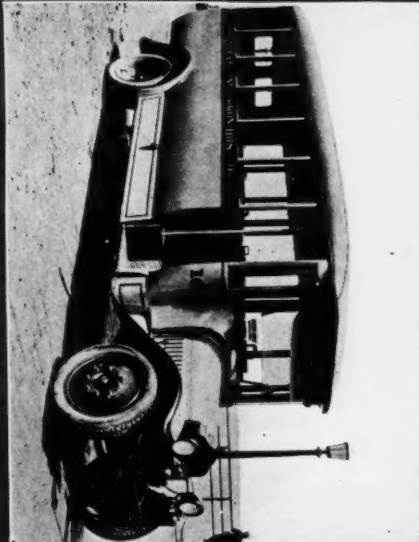
The first overhaul was made late in the year 1924, and until this time the GRUSS TWINS were never serviced in any manner. They gave supreme comfort to passengers and the minimum maintenance to owner—without a cent of upkeep cost for themselves—for 21 months.

This bus is still on the road doing service for another company and the mileage figures not available.

Is it any wonder that Mr. G. I. Fahey, formerly manager of Cleveland Akron Bus Company and now manager of Cleveland, Warren, Youngstown Stage Company, says, "Gruss Air Springs are very good—they are the best Air Springs ever made. We are more than satisfied."

So—WHY PAINT THE LILY

Very truly yours,
THE CLEVELAND PNEUMATIC TOOL CO.
3734 East 78th Street
Cleveland, Ohio



Getting the Message Over

Special Sales Letters and Tie-Ups With Distributors Sell Gruss Air-Springs

WHEN any one of the 85 distributors and dealers of Gruss Air Springs receives a sales letter from the salesmanager, F. H. Burr, he reads it and uses it. Not because there is any revolutionary message in the letters but because of the striking and novel way in which old thoughts and new facts are presented. This is best illustrated by the example which is pictured at the top of this page.

The letter is sandwiched between two photographs and the three are held together in a plain folder bearing just the title of the message. In the example illustrated the cover opens on to a striking photograph of a half a dozen lilies in a vase, against a black background. One immediately wonders what lilies have to do with the selling of air-springs. Curiosity thus being aroused, one turns to the letter for the answer to the question. The letter tells an interesting story of a bus record, in which the use of air-springs is involved.

The plain facts are given. This unvarnished statement demonstrates the value of this equipment, without recourse to flights of fancy or extravagant claims. The plain facts are sufficient grounds for

a sales appeal, hence the title "Why Paint the Lily?"

Facing the letter is a picture of the bus mentioned, adding interest to the story, and linking the idea more concretely in the mind of the reader.

When Service is the Key-Word

This system of letters is but one example of the methods used in tying up with the dealers. The factory officials are constantly on the road visiting dealers co-operating with them and doing educational work. Sales are helped by the national advertising of the makers.

Furthermore, each chassis manufacturer is supplied with exclusive information and data that is not disclosed to any other concern. The principal idea to put before the chassis makers is that the air-spring is not an accessory but a fundamental unit with distinct purposes of its own. They have no quarrel with the chassis or spring designers who provide as perfect suspension as is possible with ordinary springs. The air-spring is an adjunct performing a service that no other device can accomplish.

Then there is the tie-up with the actual user of the device. For every sale that

is made the dealer sends to the factory a card giving details of installation. As the manufacturers are constantly receiving requests from their dealers and from prospective purchasers for the names of users near to them or in the same line of business or having similar equipment, this file is invaluable. It forms a permanent record for the use of the whole distributing organization, and constitutes another useful connecting link between the dealer and the manufacturer. How closely they work together is shown by the fact that the established principle of no discounts is faithfully observed by the dealers despite the great sales resistance this stand often produces in a deal.

How to Help Oneself

F. H. Burr is a great believer in helping oneself by helping the other man. Several truck manufacturers are using leather folders, supplied gratis by Burr, containing photographs of the various models of chassis, all of which are either shown fitted with Gruss Air Springs or have the name on the picture. The recipients value these books and in pleasing them the Gruss makers get their just reward, and everybody is satisfied.

Novel Shop Arrangement and Building Layout

Special Attention Given to Service Facilities. Maintenance Department Divided Into Bays. Easing the Work of the Mechanics

THE Mack-International Motor Truck Corporation recently occupied in Los Angeles what is said to be the largest building in the United States devoted exclusively to the sale and service of motor trucks. The structure covers a ground area of 3½ acres and has available floor space in excess of 5 acres. It houses the Pacific Division offices and the Los Angeles branch of the organization, which is engaged in the distribution of Mack products in Southern California. The building is L shaped with a depth of 942 ft. and a frontage of 280 ft.

The Class A section of the building is reinforced concrete and has two floors and a basement. The Class C is brick and steel. Not only in size does the structure differ from others in the country but there are a number of unique and original features that are said to be incorporated in no other building used for similar purposes.

Straight-way Ramps

The upper floor and basement of the Class A section are made accessible from the street level by ramps of 15 per cent grade that are free from turns. This part of the building forms a hollow square around a court 125 by 100 ft. On the ground floor are located the salesrooms for new and used vehicles, the branch offices, lunch room, service department offices and stock room. The

Coast Division offices and warehouse occupy the second floor. The basement also is devoted to storage.

Outdoor Service Facilities

The court furnishes outdoor service facilities entirely within the walls. Upon entering the building an inspector greets the driver and ascertains his needs. If they be minor, such as adjustment of the carburetor or brakes or short-time repairs, the work is done in the court, otherwise the truck is turned over to an attendant who drives it into the repair department. Trucks that have been repaired and new trucks awaiting delivery are parked in the court.

For the comfort and convenience of drivers while waiting for repairs to be made, a room is provided which is fitted out with chairs, tables, cots, drinking fountain, telephone and reading matter. In Southern California many trucks are kept on the road constantly with drivers alternating at the wheel. The operators welcome the facilities provided for relaxation and especially a clean and comfortable place to nap.

The stockroom occupies 25,000 sq. ft. of floor space, and parts are housed in fireproof steel bins. Heavy parts, such as wheels, tires, axles, springs, frame members and crankshafts are stored in the basement. An automatic elevator provides access. The receiving and

delivery doors are adjacent to the elevator, thus expediting the handling of parts.

The Class C building is devoted exclusively to the service department. This building is 692 ft. long and 150 ft. wide. A distinctive feature is the repair pit. This is 400 ft. long and 9 ft. wide, built of concrete and accessible by ramps and stairways. There are 24 bays, each sufficient to accommodate two trucks. Men may work beneath a truck standing fully upright. Benches with vises extend the full 400 ft. Other benches are placed between each two bays and there are runways along the top of each bay so that mechanics may be working on both the floor level and pit level at the same time without inconvenience. Three overhead cranes, each of 6000 pounds capacity, facilitate lifting. The pit equipment includes air and electric lines. Windows extend to within 18 inches of the floor so that artificial lighting is unnecessary during daylight hours.

No Detail Neglected

This section of the building also includes metal containers for the Oakite cleaning system, steam lines, welding, tool room, ignition department, machine and paint shops. In the machine shop are lathes, presses, drills and grinders such as customarily are not seen outside of a factory.

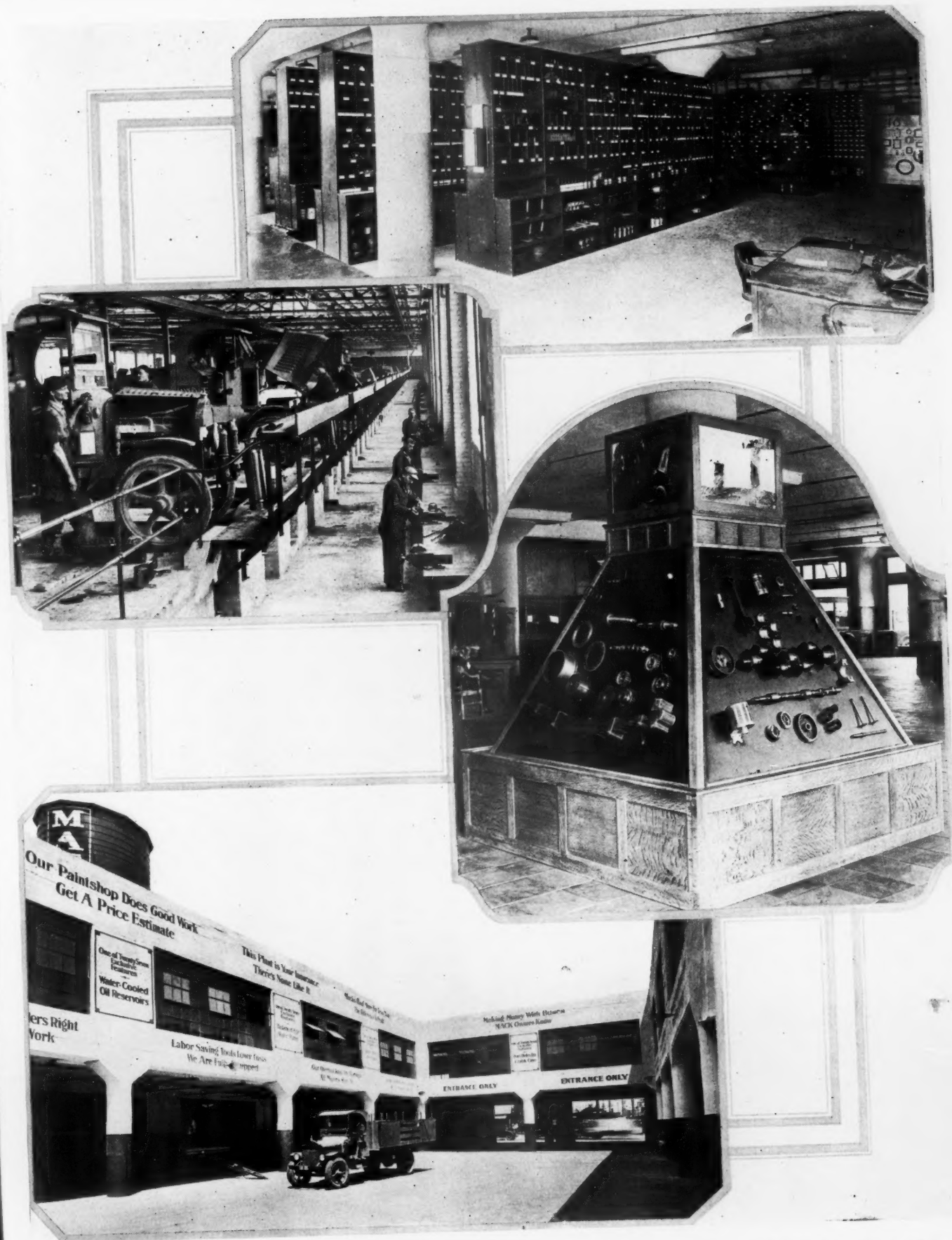
General's
Bus and
Truck Field
Leaders



at the
National
Sales Con-
vention in
Akron, Ohio

General Tire National Sales Convention Acclaimed a Success

From left to right: Fred Maloney, Manager Transportation Sales Eastern District; B. R. Leisure, Manager Transportation Sales Central District; Phil Coffey, Manager Transportation Sales Western District; C. N. Uhl, who has charge of the Bus, Truck and Taxicab Sales Department.



Top: A Section of the Stockroom; Parts Are Housed in Steel Bins, 25,000 Sq. Ft. of Space is Devoted to Stock. Center Right: Parts Are Displayed on Two Pyramid Racks Built Around Pillars in the Showroom. Center Left: This Pit is 400 Feet Long Divided Into 24 Bays by Laterals. Bays Will Accommodate Two Macks and Are Separated by Stairways. Bottom: The Inside Court New Mack Building, Los Angeles.

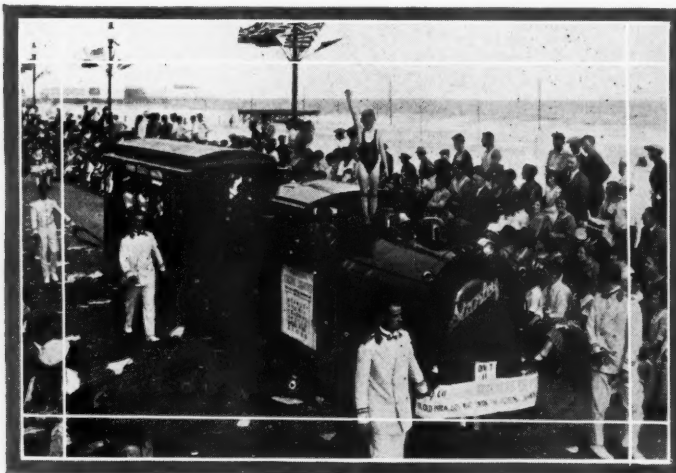
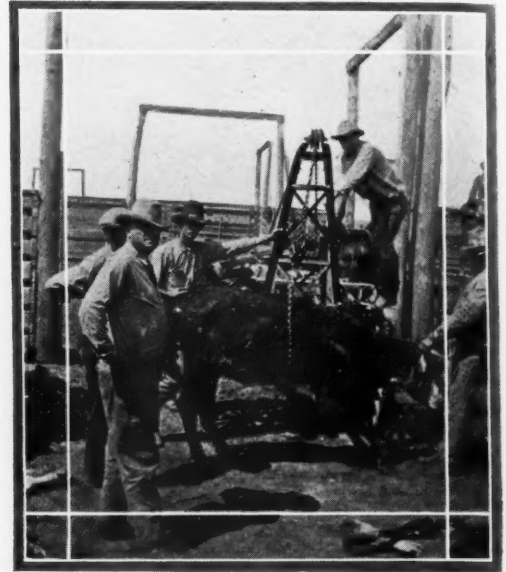
Commercial Car Journal



Above: Department of Weights and Measures Uses an Autocar
View shows 500-lb. weights being hoisted onto a dolly which also weighs 500 lbs. The truck is not only used for transporting this testing apparatus to scales in all parts of the country but is used for actual testing as well.

Right: Ambulance Duty With a Weaver Crane

A Kansas rancher conceived the idea of saving starvation exhausted stocks by assisting them to their feet. Hundreds were saved.

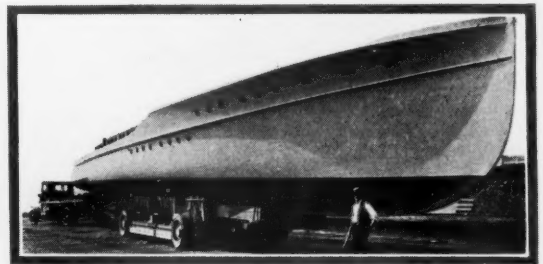


A Combination Sure to Attract the Movie Fan
The Stanley Company of America recognizes the value of stunt advertising. The above locomotive and Pullman combination used extensively throughout the Eastern cities firmly fastened the "Wanderer" in the public mind.



Even Atlanta Follows the Wake of Bus Popularity

Fifteen of these double-deck, gas-electric drive buses have been adopted by Atlanta, Georgia. They are equipped with 36 x 6 General tires on the rear.



What's a Matter of Weight and Size to a Trailer?

This performance was executed by a Highway, Model XC-197 eight wheel trailer. The launch weighs 70 tons and the trailer and clocking 14. This makes the total draw-bar pull 84 tons.



Logging by Motor Truck on a Large Scale

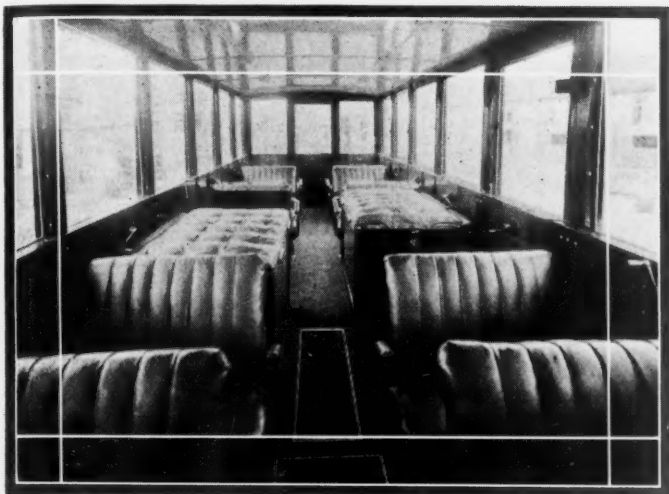
Equipment includes five 5-ton White trucks, one White power winch, a special loading cradle and a two-wheel pole carrier. Loads range as high as 6,250 ft.

Pictorial News Review

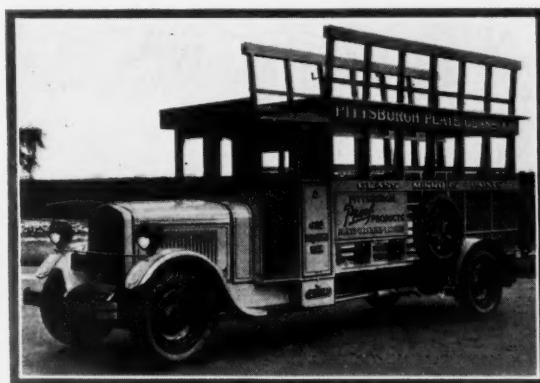


How the Vice-President of the Western Union Telegraph Travels

It is an inspection car and covers various railroads in the United States and Canada for examination of paralleling telegraphic lines. Trips range from 2,000 to 3,500 miles and from 12 to 14 men are carried constantly. The body was designed specifically for this service and for the comfort of the men by Fitz Gibbon & Crisp, Inc., Trenton, N. J.

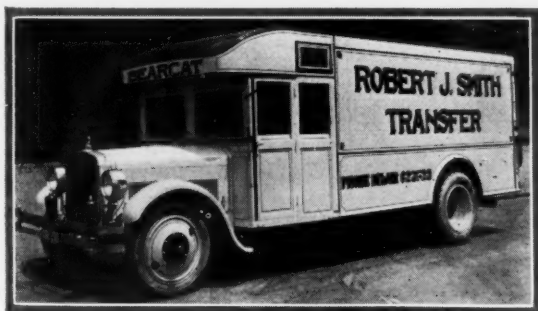


Interior View of the Fitz Gibbon & Crisp Inspection Car



Rendering Plate Glass Haulage Simple

This unusual equipment, mounted on a Garford, model KB, was built especially for transporting great sizes of glass. It can make rush deliveries at flexible speeds with safety to the fragile load.



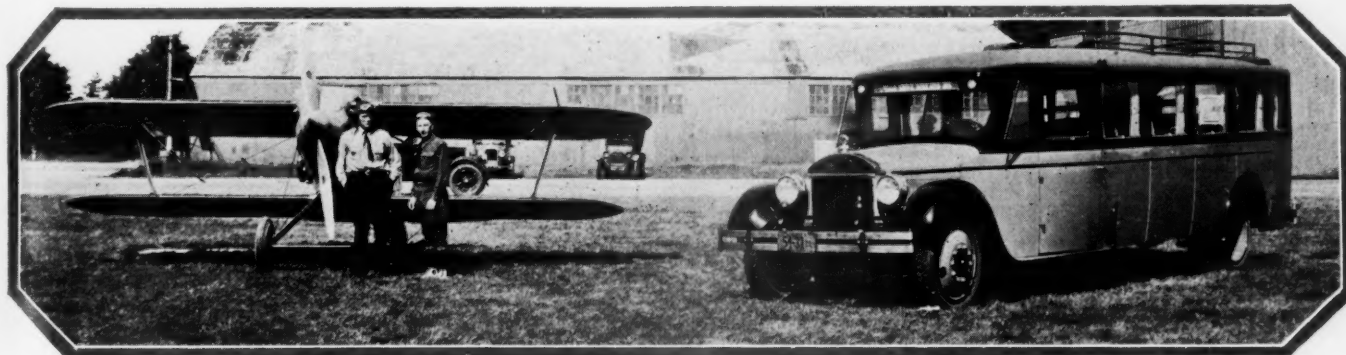
Hauls 1,100 Gal. of Milk Every Day

This body mounted on a Commerce bus chassis accommodates 1,100 gals. a day. Not only does the outfit travel 158 miles, but does it with frequent stops. Round trip averages 10 hours.



Floral Camouflage and Beautiful Maidens Did the Trick

It's a Republic truck, hard to realize but a fact. It won first prize in the Dons of Peralta parade at Oakland, Cal.



Fliers to Ride to Field in Royal Style

The parlor car, which is a Mack, was used to carry fliers to Mitchell Field during the races this month. At the right are Lieut. Rettis and Lieut. A. Williams, U. S. N., the Navy flier who hung up a speed record of 302.8 miles an hour, five miles a minute, in the Curtis racer also shown in the picture.

C. C. J. SHOP IDEAS

THESE two pages are primarily designed to help service station repairmen in exacting economies in time, labor and money. Salesmen, however, can also profit by scanning over these practical hints. Familiarity with expeditious and money-saving methods in truck repairs and operation will enable the salesman to talk the language of the average buyer of

today, who is more conversant with the important details of truck operation and maintenance than ever before. A money-saving idea will not only pave the way for intelligent attention on the part of the prospect, but will often result in a sale. The ideas contained herein are not confined to any particular class. Attention will be given wherever merit warrants it.

No. 29—Press for Forcing Hubs

The accompanying illustration shows how a press for forcing hubs out of an old wheel can be easily and cheaply constructed. This device can be used for either pressing in or pressing out hubs. This service is frequently in demand today, in view of the growing popularity of balloon equipped vehicles. Although the same hub may be used the rims are of smaller diameter and spokes of shorter length in wheels to be used in connection with balloon tires. The frame work of the press is constructed almost entirely of 2 x 4's, although iron may be used for the 4 uprights. The dimensions roughly are 19 in. wide, 3 ft. high, and 4 ft. long. A ratchet actuated jack construction is mounted in a reversed position on a cross member as indicated in the sketch. If a hub is to be forced out the wheel is placed upon the lower cross member immediately under the jack.—Fred Strominger, Indianapolis, Ind.

No. 30—Improved Acid Bottle

For those who prefer the use of acid for general soldering purposes the following method of handling acid is suggested: Take the glass top of an eye dropper and slowly revolve the pointed end in a gas flame until the opening is reduced to approximately .015 to .010 in., or the size of a pin point. Then bore or burn a hole through the cork of a wide-mouthed 2 oz. bottle and force the dropper through the cork. If the opening in the pointed end of the dropper is of the correct size, acid will not flow from it should the bottle be tipped over. But through capillary attraction, acid will immediately commence to flow upon bringing the point in contact with the work.—Allen Brunck, Town Line, N. Y.

No. 31—Band Installation

A simple and quick way for installing transmission band is suggested by using an old brake drum. Mount the steel transmission band with lining around this drum. Then firmly strap the band around the drum by pressing the two projecting ends between the jaws of a vise. This will pull the lining and band up smoothly and tightly around the drum. Rivets can then be driven in with ease by the use of a small hammer without any

fear of getting an uneven fit. The face of the drum will also serve to clinch the rivets.—Oscar F. Klaus, Sedgewickville, Mo.

No. 32—Portable Platform for Truck Repair

Movable platforms such as shown in the sketch were used very successfully in a service station taking care of trucks working on an army construction contract. These platforms may be very easily constructed in the shop. Bolts are used throughout for fastening all large pieces. This will permit ready disassembling when necessary. The platform consists of one incline and several level sections. Exact sizes are not given for the reason that these platforms will vary in size according to the conditions of the jobs in which they are to be employed. However, it should be remembered that a truck is heavy and that the platform should be made sufficiently strong to meet any demand that may be made upon them.—James W. Cottrell, Hammonton, N. J.

No. 33—Straightening Threads

It is sometimes the misfortune of a repairman in making a repair to discover that the only bolt in stock has a bruised thread and that a die to remedy it is not conveniently available. In such a contingency, it is suggested that a castellated nut be taken of the same size as the bolt to be cleaned. It can be made to function as a die. The reverse side of the nut screwed on the bolt with the aid of a wrench. The castellations in the nut will permit all foreign matter which is lodged in the threads to escape through the opening. This method has been found very satisfactory as a makeshift for straightening out threads or cleaning them of any material which may be packed in them.—T. M. Smith, Morris, Ill.

Commercial Car Journal will pay \$1 for each new idea which it accepts, or as much above that amount as the idea is worth. Simply tell us exactly how it is done and send a rough pencil sketch showing clearly the method employed or the device used.

No. 34—Removing Heavy Truck Wheels

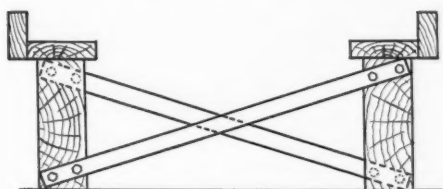
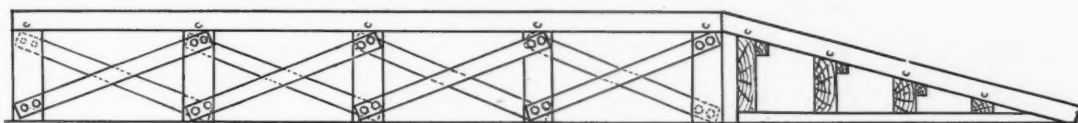
A road-side stunt for changing a rear truck wheel is to jack the wheel off the ground and smear heavy oil on the paving beneath. Lower the wheel until it just clears the ground and slide it off the axle. The wheel is replaced in the same manner after a fresh application of oil. This oiling and sliding method can be very satisfactorily used in the shop as well but it is suggested that a plain board and short piece of barrel stave be used for the sliding surfaces. This will protect the tires from oil or grease. The board and stave are employed in the same manner and this can also be carried in a service car.—James W. Cottrell, Hammonton, N. J.

No. 35—Increasing Lubrication

The following suggestion was offered for increasing the lubrication of full force feed type engines. It has been the experience of some that the cylinders and pistons do not always receive sufficient lubrication, especially when it is very old. More oil can be forced through the cylinder and piston by cutting V grooves straight across the connecting rod bearing as shown in the sketch. This permits some of the oil to work which otherwise would go out through the oil regulating valve. Although this plan is not in accordance with some of the later ideas in lubrication, it has been used with considerable success in a number of cases.—James W. Cottrell, Hammonton, N. J.

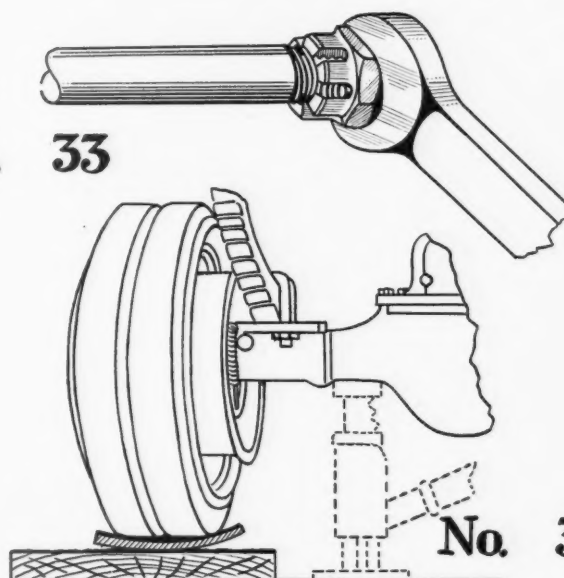
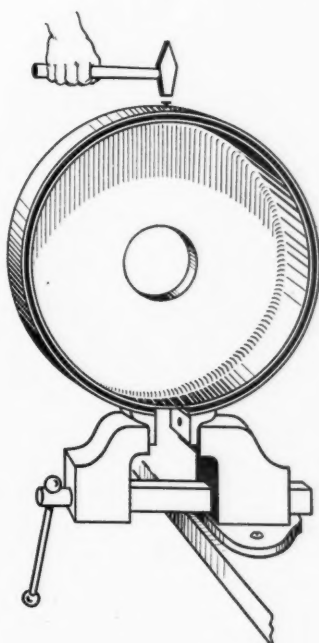
No. 36—Checking Alignment

The following tip, although not new, may be of interest to a number of repairmen who may not have been familiar with this method of checking up piston, cylinder, and connecting rod alignment after assembling pistons into a motor after repairs have been made. If clearance is noticed between the upper end of the connecting rod and the sides of the piston bosses, the repair and assembly should be okay. This examination is made while the motor is being slowly rotated. A relative conception as to the proficiency of the repair is determined by the amount of motion in the upper end of the connecting rod relative to the piston. If the job is perfectly correct, there will be no sideway movement whatever.—P. W. Des Roche, Detroit, Mich.



No. 33

No. 32

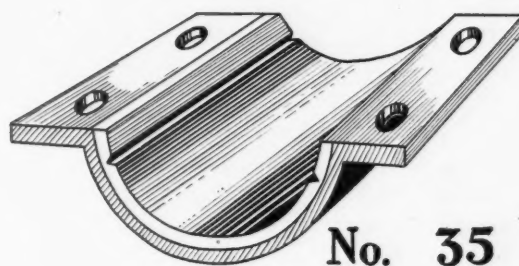


No. 34

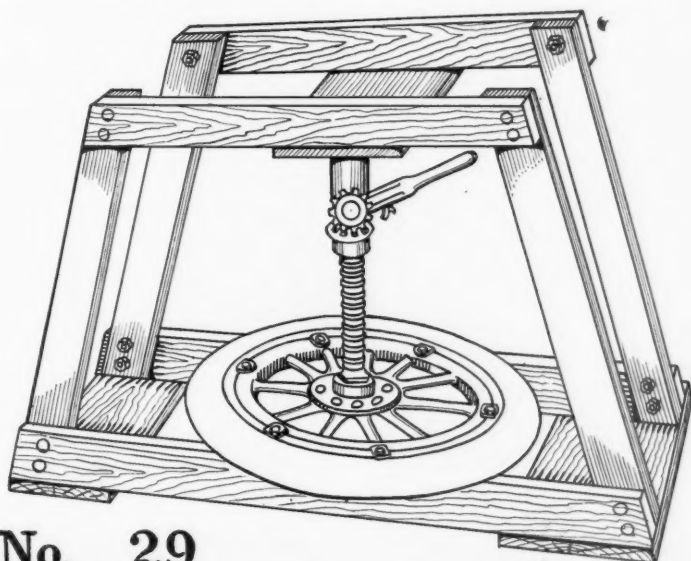


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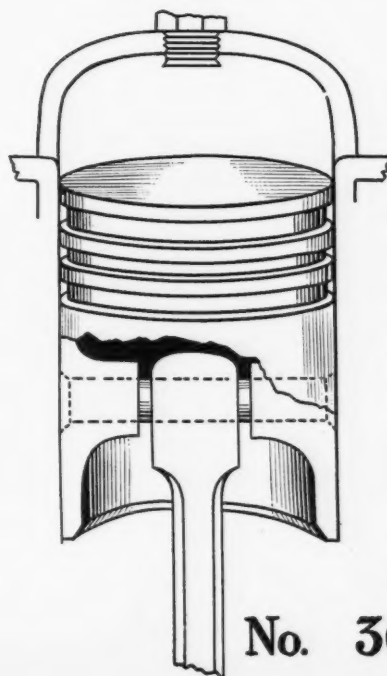
No. 31



No. 35



No. 29



No. 36

Moreland Six-Wheel Single and Double Deck Buses

THE Moreland Motor Truck Company, Los Angeles, Cal., in announcing its latest entries, a new six-wheel double deck and a single deck chassis and body, in the field of motor transportation stresses several improvements in design incorporated in them. One of the important improvements is that the service brakes of the double decker are actuated by compressed air instead of the combination hydraulic-air system formerly employed. The compressed air is stored in two tanks mounted in suspension amidships from the two frame cross-members. The transmission which is also mounted amidships is located between them. The air pump is connected directly to the right front side of the motor. With the new system, braking action is secured on an area of 1300 sq. in., which is distributed equally over six brake drums.

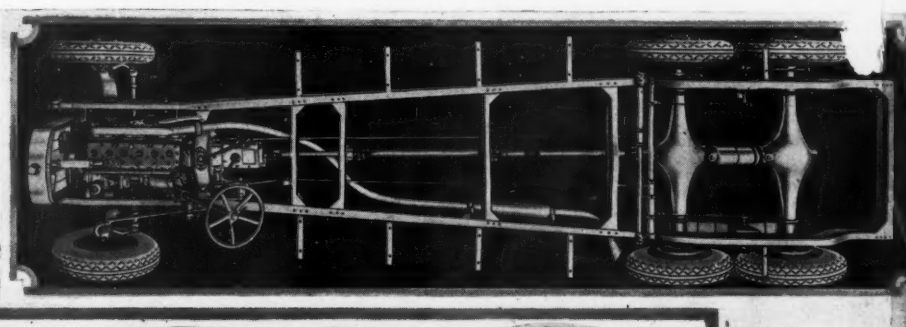
The hand operated emergency brake, which is mechanically operated and is identical in both models, applies its force to the four rear wheels only. Its brake shoes are placed behind those of the service brakes. They are equalized on all four wheels, the first equalization taking place on the brake cross bar located just in front of the rear wheels, while the second equalization is accomplished at the side, the equalizing member being mounted between two wheels.

The service brakes of the single decker are mechanical and function only on the four rear wheels, providing 960 sq. in. of braking area.

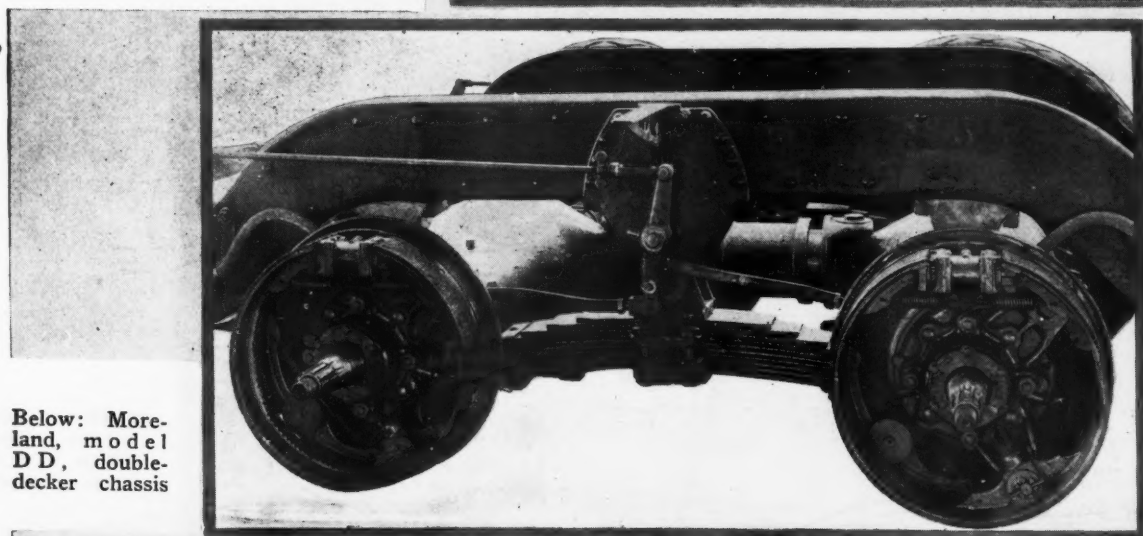
The double decker, known as DD, has a chassis weight of 8600 lb.; chassis capacity of 15,400 lb. and total weight of 24,000 lb. It is powered by a six-cylinder, $4\frac{1}{2} \times 5\frac{3}{4}$ in. engine capable of developing 105 h.p. at 1200 r.p.m. Transmission is through a multiple dry plate clutch and a three-speed transmission, mounted in suspension amidships. The entire drive includes dual axles, four wheel drive, worm gear with tubular drive shafts between clutch and transmission and transmission and worm driven rear axles. Universals are of the metal type. Other features included sectional radiator, each section being easily removable and independent; a three way radiator adjustment to relieve

radiator stresses arising from the frame; chrome-vanadium springs, alloy steel frame; cam and lever type steering gear. These last named points, of course, also apply to the single decker, which with the exception of an 86 h. p. engine, a transmission mounted in unit, and a variation in the braking system is built along the same lines but with lower capacity units.

The upper deck of model DD accommodates 35 passengers, with seats facing forward and 24 in the lower deck, which face in the same direction except seats over the wheels, which face sidewise. The frame of body is entirely of steel and all joints are riveted and welded to longitudinal steel sills. The sides and front are of plymetl, the panels of which are in separate sections and bolted to each pilaster for easy replacement in case of damage. The upper deck panel

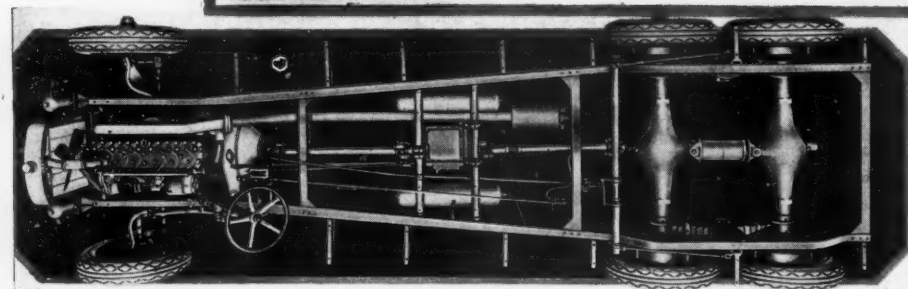


Above: Moreland, model SC, single-decker chassis



Below: Moreland, model DD, double-decker chassis

Left: Wheels removed showing four-wheel drive and brakes. Hand operated emergency brakes are behind compressed air operated service brakes



is of No. 14 gauge aluminum, 10 in. high with woven grill, flat ribbon steel extending to top rail. The roof is paneled and riveted to carlines with cast aluminum corner brackets and metal crown sheet.

Main entrance is through a door at the rear platform. A closed type door is also provided at the left front for the driver's use with hand hole in glass for signaling. Another door is

Moreland Six Wheel Double-Decker

Chassis weight, 8600 lb.; capacity 15,400 lb. Its six cylinder $4\frac{1}{2}$ x $5\frac{3}{4}$ engine develops 105 h. p. at 1200 r. p. m. Service brakes actuated by compressed air.



at right front with opening device operated by driver. A generator and battery of extra capacity provides lighting. All lights are enclosed in prismatic globes and backed by good reflectors. The body is finished with satin mahogany sides, white roof and gray floor.

The length of the upper deck is 22 ft. 8 in.; overall length of the bus, 27 ft. 10 in.; overall width, 7 ft. 6 in.; overall height ground to top rail, 10 ft. $3\frac{3}{4}$ in.; head room lower deck, 6 ft. 5 in.; top of chassis frame $22\frac{1}{2}$ in. from ground; rear platform 45 in. long; and platform floor

13 in. from the surface of the ground.

The single decker, designated as model S-C, provides seats for 29 passengers, which face forward except seats over wheel housing and opposite to front door entrance. The body frame work is built in the same substantial manner which characterizes the double decker. The roof is strongly framed with cast aluminum corner stays and metal crown sheet. Five-sixteenth inch, three-ply Haskellite covered with a heavy grade of duck, waterproofed and painted is used. A pay-enter door is at the right front. It

is 30 in. wide, folding inward and hinged at the back side. A safety door is provided at the left rear. All doors have polished wire glass. Windows are of the lift type with Rex sash. The electric system, for which current is provided by a generator and battery of extra capacity, includes 11 dome lights, switch control and dash, 12 push buttons, and Clovelite direction signal. The overall length from front of dash is 22 ft. 4 in.; overall width belt line, 90 in.; headroom, 77 in.; height of front door, $74\frac{3}{4}$ in.; and height of steps $11\frac{1}{2}$ and 11 in.

Let's Have Some Action!

(Continued from page 13)

owner for any breakage that occurs to his motor vehicle, but it incidentally increases the cost of service because of the large overhead expenses incurred by the manufacturer and dealer in keeping accurate accounts of parts sold, which expenses are as usual passed on to the consumer.

Now the foregoing may be well known information to many dealers. The reason for bringing this subject into prominence is so that no stone will be left unturned by the industry, to get behind the activities which are now going on so as to put this tax repeal program over in its entirety at the next meeting of Congress.

The taxation committee of the National Automobile Chamber of Commerce is scheduled to appear before the Ways and Means Committee of the House, during the week of October 19, for the purpose of submitting arguments for the repeal of the excise taxes. The A. A. A. is throwing the full force of its membership, some 700,000 motorists making up the membership of its 734 affiliated motor clubs, into the battle.

Every motor truck dealer therefore should make it his personal business to see to it that every member of his organization does his part by writing to his congressman urging him to vote for the repeal of all war excise taxes on automotive vehicles, and the motor truck

dealer who is selling trucks over the \$1,000 wholesale price, should lay emphasis on the condition now existing in connection with truck excise taxes. Letters should also be written to members of the Ways and Means Committee of the House. The more effort that everyone in the industry exerts now, the more certain that these taxes will be repealed.

Don't Sell the Owner a "Misfit"

(Continued from page 19)

penses, also for a report on the condition of the unit and needed adjustments or repairs. There is also room for a report on any accident.

To arrive at detailed costs a sheet can be made up of the headings in the cost forms and on a monthly basis. The figures are entered daily. Space should be provided for entering the number of the truck, make and capacity, date purchased and placed in service. Each unit should have a separate sheet. The monthly totals of each are transferred to another sheet to obtain the total cost of the units.

When Costs Mount

All expense, however, has not been considered. There will come a time when an overhaul and new parts will be required. This will probably be once in

two years. During the overhaul a truck will be hired so the expense should be charged to the disabled or idle unit, in addition to the amount of the repair bill. It may be that an extra truck is maintained for such an emergency, and if so, the cost may run from 5 to 13 per cent of the unit's cost. The idle time of the truck will run into money for it is estimated that the average truck loses 18 days per year for repairs or service. If the truck be of the heavy capacity type this expense means about \$450 a year.

With the daily records, and monthly summing up, the real cost of the load unit, package or tons, can be determined. If the cost per ton is desired, divide the total cost by the total weight of loads for any given period. If the commercial ton-mile is wanted multiply the miles by tons and divide totals by tons-totals. If packages, etc., are handled the cost may be learned by dividing the total costs by the number of packages. The cost per mile is arrived at by dividing the total costs by total miles, and, similarly the cost per day by dividing the total costs by the number of days. The daily overhead and fixed charges can be determined by dividing the number of days in the month into the items listed under these headings.

With this data an analysis of the delivery system can be made, i.e., consideration properly given to the various factors so that it may be determined whether the horse, gasoline or electric truck will provide the most efficient and economical delivery.

Service Problems Received a Real Airing

Make the Owner Understand
Don't Make Him Suspicious

FIFTY-SIX service managers were present at the first Fall meeting of the Automotive Service Association recently held in the rooms of Philadelphia Automobile Trade Association and the attendance was 78 per cent of total membership. Harry Tipper, sales manager General Motors Export Department, A. V. Comings, editor of the Automobile Trade Journal, and James Collins head of the Commercial Survey Department of the Chilton Class Journal Company were the speakers.

Tipper broadly outlined the philosophy of the service endeavor and cited the mental attitude developed by the average owner through contact with the service organization. The buyer of automobile service suspects everything he doesn't understand and unless he can justify the bill rendered his attitude will be unfavorable towards that organization.

Collins speaking on the subject of the "Business Side of Service" gave the maintenance volume picture that figures showing that the money value of new car output for this year would be considerably less than would be spent in the maintenance division of the industry. Service and maintenance are entering the era of profit and since there is no used car factor, greater earnings through maintenance sales will be made with less effort than in selling new vehicles.

"More Money for Service Managers" was the theme of Comings' talk. It is difficult to realize a profit on service unless the service manager is of a calibre comparable with the best managers in the car sales department. To secure this type of manager dealers must raise the standard of remuneration.

Comings pointed out concrete examples of successful service station administration showing that the ability to smile as an ingredient of ever present courtesy on the part of service managers was a prime asset.

Coleman Motors Moves Into Its New Home

The Coleman Motors Corporation, Littleton, Colo. has just moved into its new factory building in that city. This building is of pressed brick, thoroughly modern and fireproof, with outside dimensions of two hundred and fifty by one hundred feet. Here a force of forty men is employed, making the Coleman Four Wheel Drive Trucks in three sizes, one and a half, two and a half, and five-ton capacities. Beauty motors, Fuller transmissions, Goodyear tires, and Wise axles are used, all other parts being manufactured on the ground.

This corporation consists of H. R. Holmes, the inventor, and A. E. Coleman, a mining man, now of Denver, but formerly in business in Miami, Oklahoma.

The trucks are manufactured under the Holmes front wheel drive patent, granted in 1921.

One heavy yoke and one compensating ring deliver the power from the full floating type axle directly to the rim of the wheel, eliminating the use of gears, or other troublesome and complicated mechanism. The front axle housing terminates in an eye in the central plane of the wheel, and is fitted with ball thrust bearings at top and bottom, forming the pivot on which the wheel turns in steering.

These ball bearings are mounted within a sleeve which forms a spindle to which the steering arm is attached. On the outside of this sleeve or spindle are large roller bearings on which the wheel is mounted. The end of the axle housing is also provided with a horizontal opening through which the full floating drive axle passes. A steel power yoke is bolted to the inside of the flanged end of the drive axle, and delivers its power through two pivot pins to the large compensating ring, and from the ring to the rim of the wheel through two pins which are in the central plane of the wheel, and at points ninety degrees from the other pins. The truck also employs a selective two stage transmission in two units, each stage having four forward speeds, and one reverse, giving a gear reduction range from 8.57 to 1 in high gear to 139 to 1 in low gear.

The Coleman Truck, in competitions and demonstrations, under conditions purposely made difficult, has conclusively proven its pulling power. The Motor Transport Division of the Quartermaster's Corps of the United States Army made thorough tests of this truck at the Government Proving Grounds, Aberdeen, Maryland, last April, with the result that it was chosen as the most satisfactory for this branch of the service. At this writing government engineers are in Littleton visiting the factory, and making further tests with a view to determining the availability of the Coleman Truck for other branches.

U. S. L. Holds Annual Convention

From 1400 service stations in 1921 to 10,500 service stations and dealers in 1925 is the story that caused unprecedented enthusiasm among the 200 delegates who assembled at the USL Annual Sales Convention at Niagara Falls, N. Y., September 10th and 11th.

The two days were devoted to business sessions, luncheon and banquet and a scenic trip around Niagara Falls.

In commenting on USL's progress Mr. D. H. Kelly, first vice-president, mentioned a 74 per cent increase in sales of batteries through service stations and more than doubling USL's total sales volume.

The business sessions were devoted to service, sales and advertising plans. Several new features were announced to USL central distributors which will be made public soon.

New Orleans Educator Eulogizes the Bus

Make the Owner Understand
in Mississippi School Buses

THE motorbus is one of the most necessary links in Mississippi's educational system and without it thousands of Mississippi's youth would be deprived of the benefits of high school and college training, according to a statement recently made by W. F. Bond, superintendent of public education in Mississippi, upon the occasion of the re-opening of the high and grammar schools over the state.

Motorbuses are being used to transport children in the rural districts to and from the consolidated high schools more generally than ever before. This means of transportation has enabled the children in the most remote parts of the state to take advantage of instruction offered at the various schools.

More than 63,545 children were carried to and from the high schools in motorbuses last year in Mississippi. Over 1200 buses and some 1400 wagons were used for this purpose. 44,000 children made use of this form of transportation in 1923.

Drivers of the motorbuses are employed by the school district. Bids are submitted and the lowest accepted, the school board reserving the right to reject any bid it may care to. In many instances the buses are owned by the school districts, but in the majority of cases private individuals contract for their service. A bond to insure the faithful performance of duty is required of all owners and drivers.

The buses run on regular schedules just as do passenger trains. They pick up children each day beginning at a distance of two miles from the school. In some instances, children, living as far as 20 miles from the school, are picked up each school day by the buses. Scheduled stops are made at various points to allow the children of that vicinity to get aboard.

Accidents have been held to the minimum. Drivers are carefully selected and the principal of each school is charged with the duty of seeing that each driver complies with all rules and regulations. A monthly report is made by the driver to the principal of his school.

"The influence of the motorbus on the educational system of Mississippi has been remarkable," Superintendent Bond declared. "The children in the out-of-way sections of each county, since the advent of the bus, have been brought closer to the schools, by means of the bus, it is now just as possible for these children to receive the benefits of the district high schools as those who are fortunate enough to live close in.

"The use of the motorbus by our school boards will increase each year. It is a wonderful cog in our educational system."

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (A) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 44 and 45

(Where prices are not given it is because we have been unable to get them from authoritative sources)

For full name and address of manufacturer and information regarding complete line see page 42

Trade Name and Model	General			Engine					Electrical System		Clutch	Gearset		Rear Axle	Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)									
	Standard Wheelbase (Inches)	Tire Size (Inches)		Bore and Stroke (Inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System		Ignition System (Make)	Generator and Starter (Make)		Type	Make and Model							Location	No. of Forward Speeds	Universals (Make)	Type	Total Reduction in High	Total Reduction in Low	Brakes, Location		
		Front (Inches)	Rear (Inches)							Carburetor (Make)																				Fuel Feed	
1000 Pounds																															
Chevrolet Sup. Com. Ch.	425 103	30x3 1/2	30x3 1/2	3 1/4 x 4	21.7 H	SP	PC	PS	Non	Har	Car	V	Rem	Rem	P	Own Sup	U 3	Own	Col 53000	S	1 1/2	3.82	4.50	A	Own Sup	S.S.	Own	Hay	Jax	1500	
Overland 91	395 100	30x3 1/2	30x3 1/2	3 1/4 x 4	19.6 L	SP	PC	PC	Non	Har	Til	G	A-L	A-L	P	Own 91	U 3	Own	Col 53000	B	1 1/2	4.50	4.57	A	Own 91	Own	Own	Hay	Hay	1472	
Star	425 102	30x3 1/2	30x3 1/2	3 1/4 x 4	18.2 L	SP	PC	PC	Non	Har	Til	G	A-L	A-L	P	Own	U 3	Spi	Col 53000	...	1 1/2	4.57	4.57	A	Own	Own	Own	Hay	Hay	1465	
1500 Pounds																															
Dodge Brothers	730 116	32x4	32x4	3 1/4 x 4 1/4	24.0 L	SP	PC	SP	Non	McC	Ste	V	N-E	N-E	D	Own	U 3	Own	Col 53000	S	1 1/2	4.54	4.54	A	Own	Own	Own	Kel	Kel	2167	
Larabee A-1	133	29x4 1/2	29x4 1/2	3 1/4 x 4 1/4	23.4 L	SP	PC	PC	Non	Har	Zen	V	Bos	Bos	D	Own	U 3	Har	Col 53000	W	1 1/2	5.10	5.10	A	Sal	Sal	Sal	Jon	Jon	2730	
Rainier	1970 125	35x5	35x5	3 1/4 x 5	22.5 L	SP	PC	SP	Non	Har	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	W	1 1/2	6.75	6.75	A	Tim 1250	Tim 1250	Tim 1250	Jon	Jon	2500	
White 15-45	2150 133 1/2	34x5	34x5	3 1/4 x 5 1/4	28.5 L	SP	PC	SP	Non	Har	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	W	1 1/2	4.67	4.67	A	Own 15	Own 15	Own 15	Hoo	Hoo	3225	
White 15-45	2950 143 1/2	34x5	34x5	3 1/4 x 5 1/4	28.5 L	SP	PC	SP	Non	Har	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	W	1 1/2	5.36	5.36	A	Own	Own	Own	Hoo	Hoo	3275	
Yellow Cab Mod T3	1295 109	29x4 1/2	29x4 1/2	3 1/4 x 5	22.5 L	PS	PC	PS	Non	Lon	Zen	G	Bos	N-E	D	Own	U 3	Spi	Col 53000	B	1 1/2	4.90	4.90	B	Tim 1341	Tim 1341	Tim 1341	Mot	Mot	2500	
1 Ton																															
Ame Flyer	130	30x5	30x5	4 1/4 x 4 1/4	28.9 L	FP	PC	FP	Non	Per	Zen	V	Bos	Bos	D	Own	U 3	Blo	Col 53000	S	1 1/2	5.10	5.10	A	Col 5000S	Col 5000S	Col 5000S	Sm	Sm	3125	
Autocar F	97	34x4	34x4	4 1/4 x 4 1/4	18.1 L	SP	PC	SP	Non	Own	Str	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	R	1 1/2	8.30	8.30	A	Own F	Own F	Own F	Hoo	Hoo	3800	
Autocar G	120	34x4	34x4	4 1/4 x 4 1/4	18.1 L	SP	PC	SP	Non	Own	Str	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	R	1 1/2	8.30	8.30	A	Own F	Own F	Own F	Hoo	Hoo	3800	
Available L-1	123	33x5	33x5	4 x 5	25.6 L	PC	PC	PC	Non	Chi	Str	G	Bij	Bos	D	Own	U 3	Spi	Col 53000	I	1 1/2	5.6	5.6	A	Shu 5504	Shu 5504	Shu 5504	Bin	Bin	3100	
Bessemer G	1550 124	33x5	33x5	4 x 5	25.6 L	PC	PC	PC	Non	Chi	Str	G	Bij	Bos	D	Own	U 3	Spi	Col 53000	I	1 1/2	7.00	7.00	A	Shu 5504	Shu 5504	Shu 5504	Sch	Sch	3000	
Bethlehem KN	1895 125	33x5	33x5	3 1/4 x 5	22.3 L	FP	PC	FP	Non	Hus	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	B	1 1/2	6.86	6.86	A	Tim 1250	Tim 1250	Tim 1250	Van	Van	3280	
Beta J-3	1850 140	34x5	34x5	3 1/4 x 5	22.3 L	FP	PC	FP	Non	Hus	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	B	1 1/2	6.86	6.86	A	Tim 1250	Tim 1250	Tim 1250	Van	Van	3280	
Biederman	138	34x5	34x5	3 1/4 x 5	22.3 L	FP	PC	FP	Non	Hus	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	B	1 1/2	6.86	6.86	A	Tim 1250	Tim 1250	Tim 1250	Van	Van	3280	
Casco A	1700 138	34x5	34x5	3 1/4 x 5	22.3 L	FP	PC	FP	Non	Hus	Zen	V	Bos	Bos	D	Own	U 3	Spi	Col 53000	B	1 1/2	6.86	6.86	A	Tim 1250	Tim 1250	Tim 1250	Van	Van	3280	
Chevrolet Sup.	550 120	30x3 1/2	30x3 1/2	3 1/4 x 5 1/2	21.7 L	FP	PC	FP	Non	Har	Zen	V	Rem	Rem	D	Own	U 3	Spi	Col 53000	S	1 1/2	5.5	5.5	A	Shu	Shu	Shu	Cla	Cla	3200	
Chicago	132	30x5	30x5	3 1/4 x 5 1/2	21.7 L	FP	PC	FP	Non	Har	Zen	V	Rem	Rem	D	Own	U 3	Spi	Col 53000	S	1 1/2	5.5	5.5	A	Shu	Shu	Shu	Cla	Cla	3200	
Clydesdale 16	140	30x5	30x5	3 1/4 x 5 1/2	21.7 L	FP	PC	FP	Non	Har	Zen	V	Rem	Rem	D	Own	U 3	Spi	Col 53000	S	1 1/2	5.5	5.5	A	Shu	Shu	Shu	Cla	Cla	3200	
Commerce Distributor	130	30x5	30x5	3 1/4 x 5 1/2	21.7 L	FP	PC	FP	Non	Har	Zen	V	Rem	Rem	D	Own	U 3	Spi	Col 53000	S	1 1/2	5.5	5.5	A	Shu	Shu	Shu	Cla	Cla	3200	
Diamond 175	194	30x5	30x5	3 1/4 x 5 1/2	21.7 L	FP	PC	FP	Non	Har	Zen	V	Rem	Rem	D	Own	U 3	Spi	Col 53000	S	1 1/2	5.5	5.5	A	Shu	Shu	Shu	Cla	Cla	3200	
Duplex G	2490 194	33x5	33x5	4 1/4 x 4 1/4	25.6 L	PC	PC	PC	Non	GEO	Str	V	Wes	Wes	D	Own	U 3	Spi	Col 53000	S	1 1/2	5.12	5.12	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Dorris K-2	1085 124	32x4 1/2	32x4 1/2	3 1/4 x 4 1/2	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Federal Knight	365 132	30x4 1/2	30x4 1/2	3 1/4 x 4 1/2	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Ford T	365 132	30x4 1/2	30x4 1/2	3 1/4 x 4 1/2	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Garford 16	1590 132	32x5	32x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
GMC K-17	131	33x5	33x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Hug L-17	995 130	33x5	33x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Godfredson 20 B	129	33x5	33x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Graham Bros. BB	129	33x5	33x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Gramm-Bern. 10	129	33x5	33x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Mod	Zen	G	Apo	A-L	Cov	Own	U 3	Spi	Col 53000	B	1 1/2	4.23	4.23	A	Tim 1250	Tim 1250	Tim 1250	Mun	Mun	2000	
Gramm-Kincaid 233N	139	30x5	30x5	3 1/4 x 5	22.5 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Gramm-Kincaid 263N	139	30x5	30x5	3 1/4 x 5	22.5 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Grass Premier 40	1550 130	30x5	30x5	3 1/4 x 5	22.5 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Hug TA	1650 118	34x5	34x5	4 x 5	22.5 L	PC	PC	PC	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Indiana 11	129	34x5	34x5	4 x 5	22.5 L	PC	PC	PC	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Intercontinental S	129	34x5	34x5	4 x 5	22.5 L	PC	PC	PC	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Kenworth OS	2150 131	32x4 1/2	32x4 1/2	3 1/4 x 4 1/2	22.5 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
King-Zettler	2050 134	34x4	34x4	4 1/4 x 4 1/4	28.9 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Kiesel	1850 140	34x5	34x5	4 1/4 x 4 1/4	28.9 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Kleber	2600 130	34x5	34x5	4 1/4 x 4 1/4	28.9 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
LeMoore GP-1	151	34x5	34x5	4 1/4 x 4 1/4	28.9 L	FP	PC	FP	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Luedinghaus	130	33x5	33x5	3 1/4 x 5	22.5 L	PC	PC	PC	Non	Chi	Str	V	Eis	Rem	Ful	Own	U 3	Blo	Col 53000	W	1 1/2	5.30	5.30	A	Tim 1250	Tim 1250	Tim 1250	Gdy	Gdy	3200	
Master 11B	132	33x5	33x5																												

For full name and address of manufacturer and information regarding complete line see page 42

Trade Name and Model	General			Engine						Electrical System		Clutch		Gearset		Rear Axle		Front Axle Make and Model		Springs (Make)		Steering Gear (Make)		Wheels (Make)		Rims (Make)		Chassis Weight (lbs.)		
	Standard Wheelbase (Inches)	Tire Size (Inches)		Bore and Stroke (Inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System		Generator and Starter (Make)	Type	Make and Model	Location	No. of Forward Speeds	Universals (Make)	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)	
		Front (Inches)	Rear (Inches)							Carburetor (Make)	Fuel Feed																			
1 Ton—con'd																														
O. K. O.	1575	33x5	33x5	3 1/2 x 5 1/2	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	Ful LTU	U	3	Har	Tim 6250	W	14	6.75	5.60	A	Tim 1250	Tut	Ros	Mot	Fir	3250
Ogden A2	1225	34x5	34x5	4 x 5	25.6	6 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Pic	Tim 6258	W	14	5.50	20.0	A	Tim 1250	Own	Ros	Sec	Gdy	3100
Peden	780	32x4 1/2	30x3 1/2	3 1/2 x 4 1/2	19.6	6 L	PS	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	6.75	22.5	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Rainier R-29	2150	35x5	35x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	4.7	15.7	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Rugles 16	122	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Sandow GA	130	32x6	32x6	4 x 5	25.6	6 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Schacht	132	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Service 25F	132	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Stewart 16	1195	32x4 1/2	32x4 1/2	3 1/2 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
United 15	125	32x4 1/2	32x4 1/2	3 1/2 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Wachusett S.	2400	34x5	34x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Wilcox AA	1900	34x5	34x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Yellow Cab T1	1450	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
Yellow Cab T-1	1550	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	5.5	23.4	A	Tim 1250	Own	Ros	Sec	Gdy	2700
1 1/4 Ton																														
Autocar F.	97	34x4 1/2	34x4 1/2	4 1/2 x 4 1/2	18.1	5 L	SP	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Autocar G.	120	34x4 1/2	34x4 1/2	4 1/2 x 4 1/2	18.1	5 L	SP	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Brookman	154	34x5	34x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Brookman E.	125	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Brookman E7	185	32x6	32x6	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Clinton 20B	1980	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Clydesdale 10A	2070	150	34x5	4 1/2 x 4 1/2	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Corbett 26	140	34x5	34x5	4 1/2 x 4 1/2	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Defiance	128	35x5	35x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Defiance G12	140	35x5	35x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Diamond T 04	132	36x4	36x4	4 x 5 1/2	25.6	6 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Eagle 101	1875	34x5	34x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Federal R-3	1675	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Gramme-Bernstein 10	132	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Gramme-Bernstein 233N	133	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Gramme-Kinsaid 263N	133	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Guilber B.	1650	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Guilber B-6	1750	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
1 1/2 Ton																														
Hahn B2	1800	34x5	34x5	4 x 5	25.6	6 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Larabee-Deyo X-21	138	32x6	32x6	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Macfar EX.	138	34x5	34x5	4 x 5	25.6	6 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Master 11	132	35x5	35x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Memories HT	130	34x3 1/2	34x3 1/2	4 x 5	25.6	6 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Northway Rocket	1390	32x4 1/2	32x4 1/2	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Patriot 17R	1185	32x6	32x6	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Reo F.	129	30x5	30x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec	Gdy	3500
Rugles 20R	128	33x5	33x5	3 3/4 x 5	22.5	5 L	PC	Non	Own	Zen	V	Eis	Dyn	D	B-L 30	U	3	Spi	Tim 6258	W	14	8.30	33.2	A	Tim 1250	Own	Ros	Sec		

2 Ton

For full name and address of manufacturer and information regarding complete line see page 42

Trade Name and Model	General			Engine					Electrical System		Clutch	Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)			
	Standard Wheelbase (inches)	Tire Size		Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System		Ignition System	Generator and Starter (Make)	Type	Make and Model	Final Drive	Type							Total Reduction in High	Low Reduction in	
		Front (inches)	Rear (inches)							Carburetor (Make)																Fuel Feed
2 Ton—Con'd																										
Autocar H.....	114	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	5500			
Autocar K.....	138	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	5600			
Autocar L.....	152	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	5700			
Autocar M.....	166	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	5800			
Autocar N.....	180	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	5900			
Autocar O.....	194	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6000			
Autocar P.....	208	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6100			
Autocar Q.....	222	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6200			
Autocar R.....	236	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6300			
Autocar S.....	250	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6400			
Autocar T.....	264	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6500			
Autocar U.....	278	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6600			
Autocar V.....	292	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6700			
Autocar W.....	306	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6800			
Autocar X.....	320	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	6900			
Autocar Y.....	334	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7000			
Autocar Z.....	348	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7100			
Autocar AA.....	362	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7200			
Autocar AB.....	376	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7300			
Autocar AC.....	390	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7400			
Autocar AD.....	404	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7500			
Autocar AE.....	418	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7600			
Autocar AF.....	432	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7700			
Autocar AG.....	446	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7800			
Autocar AH.....	460	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	7900			
Autocar AI.....	474	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8000			
Autocar AJ.....	488	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8100			
Autocar AK.....	502	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8200			
Autocar AL.....	516	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8300			
Autocar AM.....	530	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8400			
Autocar AN.....	544	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8500			
Autocar AO.....	558	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8600			
Autocar AP.....	572	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8700			
Autocar AQ.....	586	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8800			
Autocar AR.....	600	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	8900			
Autocar AS.....	614	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9000			
Autocar AT.....	628	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9100			
Autocar AU.....	642	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9200			
Autocar AV.....	656	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9300			
Autocar AW.....	670	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9400			
Autocar AX.....	684	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9500			
Autocar AY.....	698	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9600			
Autocar AZ.....	712	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9700			
Autocar BA.....	726	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9800			
Autocar BB.....	740	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	9900			
Autocar BC.....	754	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10000			
Autocar BD.....	768	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10100			
Autocar BE.....	782	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10200			
Autocar BF.....	796	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10300			
Autocar BG.....	810	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10400			
Autocar BH.....	824	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10500			
Autocar BI.....	838	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo	Non	10600			
Autocar BJ.....	852	34x6	36x10	4 1/2 x 5 1/2	25.6	L	SP	Pha	Own	Str	GG	Bos	L-N*	P	Own H	R	F	7.75	46.3	Del	Hoo					

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Gasoline Tractor-Trucks

For full name and address of manufacturer and information regarding complete line see page 42

Trade Name and Model	General		Engine				Electrical System		Clutch	Gearset		Rear Axle	Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)									
	Standard Wheelbase (inches)	Tire Size	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)		Fuel System			Ignition System (Make)	Generator and Starter (Make)							Type	Make and Model	Location	No. of Forward Speeds	Universals (Make)	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low	Brakes, Location
									Carburetor (Make)	Fuel Feed																			
Gasoline Tractor-Trucks—Con'd																													
Kelly-Springfield K-76	3600	36x10	4 1/2 x 5 1/2	28.9	L	PC	Pie	Own	Zen	G	Eis	Opt	R&B	D	E-L 55	A	Pet	Own K76	W	1 1/2	11.6	62.0	A	Own K76	Mat	Ros	Own K76	Own	6400
Kelly-Springfield K-41	4400	36x12	4 1/2 x 5 1/2	32.4	T	PC	Pie	Lon	Zen	G	Eis	Opt	R&B	D	E-L 60	A	Pet	Own K41	I	1 1/2	10.2	64.8	D	Own K41	Per	Gem	Own K41	Non	7740
Kelly-Springfield K-42	3900	36x5	4 1/2 x 5 1/2	32.4	T	PC	Pie	Lon	Zen	G	Eis	Opt	R&B	D	E-L 60	A	Pet	Std 607-5	I	1 1/2	10.2	62.0	D	Own K-42	Gem	Gem	Own K-42	Non	8100
Kelly-Springfield K-61	5000	36x6	4 1/2 x 5 1/2	32.4	T	PC	Pie	Lon	Zen	G	Eis	Opt	R&B	D	E-L 60	A	Pet	Own K-61	I	1 1/2	10.2	62.0	D	Own K-61	Per	Gem	Own K-61	Non	9025
Kelly-Springfield K-100	5000	36x6	4 1/2 x 5 1/2	28.9	L	PC	Pie	Lon	Zen	G	Eis	Opt	R&B	D	E-L 60 Max	A	Pet	Own	I	1 1/2	13.41	127.0	B	Own	Mer	Gem	Own	Non	9400
Mack AC 5-Ton	122 1/2	36x4	4 1/2 x 5	28.9	L	PS	Own	Own	Str	Own	G	Spl	N-E	Own	Own AB	U	Spi	Own AB	C	1 1/2	9.06	51.1	B	Own AB	Mer	Own	Own	Non	.....
Mack AC 7-Ton	128	36x5	4 1/2 x 5 1/2	40.0	L	PS	Own	Own	Str	Own	G	Spl	N-E	Own	Own AC	U	Spi	Own AC	C	1 1/2	9.69	62.2	D	Own AC	Mer	Own	Own	Non	.....
Mack AC 10-Ton	128	36x6	4 1/2 x 5 1/2	40.0	L	PS	Own	Own	Str	Own	G	Spl	N-E	Own	Own AC	U	Spi	Own AC	C	1 1/2	10.5	67.4	D	Own AC	Mer	Own	Own	Non	.....
Mack AC 13-Ton	128	36x6	4 1/2 x 5 1/2	40.0	L	PS	Own	Own	Str	Own	G	Spl	N-E	Own	Own AC	U	Spi	Own AC	C	1 1/2	11.5	73.5	D	Own AC	Mer	Own	Own	Non	.....
Mack AC 16-Ton	128	36x7	4 1/2 x 5 1/2	40.0	L	PS	Own	Own	Str	Own	G	Spl	N-E	Own	Own XB	U	Spi	Own XB	W	1 1/2	9.25	50.2	A	Own XB	S.P.	Own	Own	Non	6280
Pierce-Arrow XB	3500	36x5	4 1/2 x 5 1/2	25.6	T	FP	Own	Own	Str	Own	P	Del	Del	Own	Own RD	U	A	Own RD	W	1 1/2	7.8	41.5	B	Own	S.P.	Own	Own	Non	8490
Pierce-Arrow RF	4700	36x6	4 1/2 x 5 1/2	32.4	T	FP	Own	Own	Str	Own	P	Del	Del	Own	Own RF	U	A	Own RF	W	F	10.0	51.9	B	Own	S.P.	Own	Own	Non	9540
Saurer	6500	40x7	4 1/2 x 5 1/2	29.3	L	PS	Own	Own	Own	Own	G	Spl	Non	Own	Own G	U	A	Own G	B	F	7.87	50.0	B	Own	Own	Own	Own	Non	7500
Schacht 5-Ton	3600	36x4	4 1/2 x 5	28.9	L	PC	Own	Own	Own	Own	G	Spl	Non	Own	Own 5	U	A	Own 5	B	F	8.5	40.4	B	Own	Own	Own	Own	Non	6400
Schacht 7-Ton	4000	36x5	4 1/2 x 5	32.4	L	PC	Dup	Own	Own	Own	G	Spl	Non	Own	Own 7	U	A	Own 7	B	R	10.4	49.4	B	Own	Own	Own	Own	Non	7500
Schacht 10-Ton	4400	36x6	4 1/2 x 5	32.4	L	PC	Dup	Own	Own	Own	G	Spl	Non	Own	Own 10	U	A	Own 10	R	F	14.0	66.5	B	Own	Own	Own	Own	Non	8200
Schacht 13-Ton	4600	36x6	4 1/2 x 5 1/2	32.4	L	PC	Dup	Own	Own	Own	G	Spl	Non	Own	Own 13	U	A	Own 13	R	F	14.0	66.5	B	Own	Own	Own	Own	Non	8400
Schacht 15-Ton	5100	36x7	4 1/2 x 5 1/2	32.4	L	PC	Dup	Own	Own	Own	G	Spl	Non	Own	Own 15	U	A	Own 15	R	F	17.75	91.7	A	Own	Own	Own	Own	Non	8700
Service 81	131 1/2	36x4	4 1/2 x 5 1/2	28.9	L	PC	Non	Own	Own	Own	V	Eis	Rem	Own	B-L 51	U	A	Tim 6566	W	F	7.8	41.7	A	Tim 1632B	Sht	Ros	Tim 1632B	Non	7065
Service 103	131 1/2	36x5	4 1/2 x 5 1/2	28.9	L	PC	Non	Own	Own	Own	V	Eis	Rem	Own	B-L 60	U	A	Tim 6700	W	F	8.5	45.5	A	Tim 1732B	Sht	Ros	Tim 1732B	Non	9150
Sterling DWS-10T	130	36x4	4 1/2 x 5 1/2	30.6	L	PC	Wau	Own	Own	Own	V	Eis	Rem	Own	B-L 60	U	A	Tim	W	F	10.25	97.3	A	Tim 1644B	Mat	Ros	Tim 1644B	Non	4680
Sterling EW-15T	148	36x5	4 1/2 x 5 1/2	32.4	L	PC	Wau	Own	Own	Own	V	Eis	.....	Own	B-L 50	U	A	Tim	W	F	8.5	45.5	A	Tim 1632B	Mat	Ros	Tim 1632B	Non	7775
Sterling EW-20T	148	36x6	4 1/2 x 5 1/2	32.4	L	PC	Wau	Own	Own	Own	V	Eis	.....	Own	B-L	U	A	Tim	W	F	10.3	61.0	A	Tim 1632B	Mat	Ros	Tim 1632B	Non	8675
Sterling EWS-24T	148	36x6	4 1/2 x 5 1/2	40.0	L	PC	Wau	Own	Own	Own	V	Eis	.....	Own	B-L	U	A	Tim	W	F	10.2	61.0	A	Tim 1632B	Mat	Ros	Tim 1632B	Non	9175
Sterling EC-20T	148	36x6	4 1/2 x 5 1/2	40.0	L	PC	Wau	Own	Own	Own	V	Eis	.....	Own	B-L	U	A	Tim	W	F	8.7	52.2	A	Tim 1732B	Mat	Ros	Tim 1732B	Non	8100
Sterling EC-24T	148	36x6	4 1/2 x 5 1/2	40.0	L	PC	Wau	Own	Own	Own	V	Eis	.....	Own	B-L	U	A	Tim	W	F	8.7	52.2	A	Tim 1732B	Mat	Ros	Tim 1732B	Non	8400
Sterling EC-50T	148	36x7	4 1/2 x 5 1/2	46.0	L	PC	Wau	Own	Own	Own	V	Eis	.....	Own	B-L	U	A	Tim	W	F	8.7	52.2	A	Tim 1732B	Mat	Ros	Tim 1732B	Non	10000
Walter FL 7-Ton	40x7	40x7	4 1/2 x 5 1/2	25.6	L	PC	Own	Own	Own	Own	V	Wes	N-E	Own	Own FE	U	U	Own FE	W	F	8.50	85.0	A	Own FE	.....	Ros	Day	Non	7700
Walter FL 10-Ton	40x8	40x8	4 1/2 x 5 1/2	32.4	L	PC	Own	Own	Own	Own	V	Wes	N-E	Own	Own F	U	U	Own F	W	F	8.50	85.0	A	Own F	.....	Ros	Day	Non	8500
Walter FL 15-Ton	40x7	40x7	4 1/2 x 5 1/2	32.4	L	PC	Own	Own	Own	Own	V	Wes	N-E	Own	Own FR	U	U	Own FR	W	F	8.50	85.0	A	Own FR	.....	Ros	Day	Non	9200

Manufacturers and Models Included in the Specification Tables

List Includes Manufacturers of Buses and Electric Trucks

Trade Name	Capacity	Name	Address
Ace	2½-Bus	American Motor Truck Co.	Newark, Ohio
Acme	1, 1½, 2, 3, 5, 6¾-Bus	Acme Motor Truck Co.	Cadillac, Mich.
Acorn	2½, 4	Acorn Motor Truck Co.	Chicago, Ill.
American-La France	2½, 3½, 5, 6, 7-T, 8	American-La France Fire Engine Co.	Elmira, N. Y.
Armleder	1½, 2½, 3, 4 T. T.	O. Armleder Motor Truck Co.	Cincinnati, Ohio
Atterbury	1½, 2½, 3½, 5	Atterbury Motor Car Co.	Buffalo, N. Y.
Autocar	1, 1½, 1½ T., 2½, 3, 4, 5, 6, 7-T	Autocar Co.	Ardmore, Pa.
Available	1, 1½, 2, 2½, 3½, 4, 5	Available Truck Co.	Chicago, Ill.
Bessemer	1, 1½, 2½	Bessemer Motor Truck Co.	Plainfield, N. J.
Bethlehem	1, 2, 2½, 3½	Bethlehem Motors Corp.	Allentown, Pa.
Betz	1, 2½	Betz Motor Truck Co.	Hammond, Ind.
Biederman	1, 1½, 1½, 2½, 3½, 5	Biederman Motors Co.	Cincinnati, Ohio
Bridgeport	1½, 2½, 4-Bus	Bridgeport Motor Truck Corp.	Stratford, Conn.
Brinton	1½, 2½	Brinton Motor Truck Co.	Philadelphia, Pa.
Brookway	1½, 2, 3, 4, 5-Bus	Brookway Motor Truck Corp.	Cortland, N. Y.
Buck	1½, 2, 2½, 3, 4, 5, 7½	The Buck Motor Truck Co.	Bellevue, Ohio
C. T. Elec.	½, ¾, 1, 2, 3, 3½, 5	Commercial Truck Co.	Philadelphia, Pa.
Casco	1, 2	Casco Motors, Inc.	Sanford, Me.
Chevrolet	¾, 1	Chevrolet Motor Co.	Detroit, Mich.
Chicago	1, 1½, 2½, 3½, 5	Chicago Motor Truck, Inc.	Chicago, Ill.
Clinton	1½, 2, 3, 4, 5 to 7-Bus	Clinton Motors Corp.	Reading, Pa.
Clydesdale	1, 1½, 1½, 2, 2½, 3, 3½, 5	Clydesdale Motor Truck Co.	Clyde, Ohio.
Commerce	1, 1½, 2, 2½-Bus	Commerce Motor Truck Co.	Ypsilanti, Mich.
Concord	1½, 2, 2½, 3	Abbott-Downing Truck & Body Company	Concord, N. H.
Corbitt	1½, 2, 2½, 3, 4, 5	Corbitt Motor Truck Co.	Henderson, N. C.
Day-Elder	1½, 2, 2½, 3, 4, 5-Bus	Day-Elder Motors Corp.	Newark, N. J.
Defiance	1½, 1½, 2, 3, 4, 5-Bus	Century Motor Truck Co.	Defiance, Ohio
Denby	1½, 2, 2½, 3, 4, 5-Bus	Denby Motor Truck Corp.	Detroit, Mich.

Trade Name	Capacity	Name	Address
Diamond T	1, 1½, 2, 3, 3½, 5	Diamond T Motor Car Co.	Chicago, Ill.
Dixon	1½, 2, 2½, 3½, 5	Dixon Motor Truck Co.	Altoona, Pa.
Dodge Brothers	¾	Dodge Brothers, Inc.	Detroit, Mich.
Dorris	1, 2½, 4-Bus	Dorris Motor Car Co.	St. Louis, Mo.
Double Drive	3	Double Drive Truck Co.	Benton Harbor, Mich.
Duplex	1, 1½, 2, 3, 3½-Bus	Duplex Truck Co.	Lansing, Mich.
Eagle	1½, 2½	Eagle Motor Truck Corp.	St. Louis, Mo.
F. W. D.	3	Four-Wheel Drive Auto Co.	Clintonville, Wis.
Fageol	1½, 2, 3, 4, 6-Bus	Fageol Motors Co.	Oakland, Cal.
Federal	1, 1½, 1½, 2½, 4, 5-Bus, T. T.	Federal Motor Truck Co.	Detroit, Mich.
Fifth Avenue	Bus	Fifth Avenue Coach Co.	New York City.
Fisher Fast Freight	1½	Standard Motor Truck Co.	Detroit, Mich.
Flint Road King	1½	Flint Motor Co.	Flint, Mich.
Ford	1	Ford Motor Co.	Highland Park, Mich.
Front Drive	1½	Double Drive Truck Co.	Benton Harbor, Mich.
G. M. C	1, 1½, 2½, 3½, 5-T. T.	General Motors Truck Co.	Pontiac, Mich.
Garford	1, 1½, 2½, 4, 5, 7-T. T. Bus	Garford Motor Truck Co.	Lima, Ohio
Gary	1, 2½, 3, 3½, 5-Bus	Gary Motor Corp.	Gary, Ind.
Gotfredson	1, 1½, 2, 3, 4, 5	Gotfredson Truck Corp.	Detroit, Mich. & Walkerville, Ont.
Graham Bros.	1, 1½-Bus	Graham Brothers	Detroit, Mich.
Gramm-Bernstein	1, 1½, 1½, 2½, 3, 4, 5	Gramm-Bernstein Motor Truck Co.	Lima, Ohio
Gramm & Kincaid	1, 1½, 1½, 2, 2½, 3, 4-Bus	Gramm & Kincaid Motors, Inc.	Sauk City, Wis.
Grass Premier	1, 1½, 2, 2½, 3½	Grass Premier Truck Co.	Poughkeepsie, N. Y.
Guildor	1½, 1½, 2, 3, 4, 5, 6-Bus	Guildor Engineering Co.	Hamburg, Pa.
Hahn	1½, 1½, 2, 2½, 3, 5-Bus	Hahn Motor Truck Co.	Harvey, Ill.
Harvey	2½, 3½, Bus	Harvey Motor Truck Co.	Highland, Ill.
Hug	1, 1½, 2, 2½	Hug Company	Marion, Ind.
Indiana	1, 1½, 2½, 3½, 4, 5-Bus	Indiana Truck Corp.	Chicago, Ill.
International	1, 1½, 2, 3, 5-Bus	International Harvester Co. of America	Lewistown, Pa.
Kearns	1½, 2, 2½, 3½, 5	Kearns Dughe Motors Co.	Newark, N. J.
Kelland (Elec.)	¾, ¾, 1	Kelland Motor Car Co.	Springfield, Ohio
Kelly-Springfield	1½, 2½, 3½, 5-7	Kelly-Springfield Motor Truck Co.	Seattle, Wash.
Kenworth	1, 1½, 2, 3, 4, 5	Kenworth Motor Truck Corp.	Chicago, Ill.
King Zeitler	1, 1½, 2½, 3½, 5	King Zeitler Co.	Hartford, Wis.
Kissel	1, 1½, 4, 5	Kissel Motor Car Co.	San Francisco, Cal.
Kleiber	1, 1½, 2½, 3½, 5	Kleiber Motor Truck Co.	Pittsburgh, Pa.
Lange	1½, 2½, 3½	Lange Motor Truck Co.	Danbury, Conn.
Lansden (Elec.)	¾, 1, 2, 3½, 5, 6	Lansden Company	Binghamton, N. Y.
Larrabee-Deyo	¾, 1½, 1½, 2½, 3½, 5-Bus	Larrabee-Deyo Motor Truck Co., Inc.	Chicago, Ill.
LeMoon	1, 1½, 2, 2½, 3½, 5	Nelson & Le Moon Truck Co.	St. Louis, Mo.
Luedinghaus	1, 1½, 2½, 3½, 5	Luedinghaus-Espenschied Wagon Co.	Seranton, Pa.
Maccar	1½, 2, 3, 4, 5	Maccar Truck Co.	New York, N. Y.
Mack	1½, 2, 2½, 3½, 5, 7-T. T.	International Motor Co.	Chicago, Ill.
Master	1, 1½, 1½, 2½, 3, 3½, 4, 5, 5½-Bus	Master Motor Truck Mfg. Co.	Clintonville, Wis.
Menominee	1, 1½, 1½, 2½	Menominee Motor Truck Co.	Burbank, Cal.
Moreland	1, 1½, 2, 2½, 3, 3½, 5	Moreland Motor Truck Co.	
Nash	1, 2	Nash Motors Co.	Kenosha, Wis.
National	2, 3, 3½	National Steel Car Corp., Ltd.	Hamilton, Ont., Canada
Noble	1, 1½, 2, 2½, 3, 3½, 4	Noble Motor Truck Co.	Kendallville, Ind.
Northway	1½, 3, 5	Northway Motors Corp.	Natick, Mass.
O. B. (Elec.)	2, 3½, 5	O. B. Electric Vehicles, Inc.	Long Island City, N. Y.
O. K.	1, 1½, 2, 2½, 3½	O. K. Mfg. Co.	Okay, Okla.
Ogden	1, 1½, 2½, 3½, 5	Ogden Truck Co.	Chicago, Ill.
Oshkosh	2, 2½, 4	Oshkosh Motor Truck Mfg. Co.	Oshkosh, Wis.
Overland	1½	Willys-Overland Co.	Toledo, Ohio.
Patriot	1½, 1½, 2, 2½, 3	Patriot Mfg. Co.	Havlock, Neb.
Penn	1, 2	Penn Motors Corp.	Philadelphia, Pa.
Pierce-Arrow	2, 3, 4, 5, 6, 7½, 8-T. T.	Pierce-Arrow Motor Car Co.	Buffalo, N. Y.
Rainier	¾, 1, 1½, 2, 2½, 3½, 6	Rainier Trucks, Inc.	Long Island City, N. Y.
Rehberger	2, 3, 4, 5	Arthur Rehberger & Son, Inc.	Newark, N. J.
Reo	1½, 2-Bus	Reo Motor Car Co.	Lansing, Mich.
Republic	1½, 1½, 2, 3, 4-Bus	Republic Motor Truck Co., Inc.	Alma, Mich.
Rowe	2½, 3, 4, 5	Rowe Motor Mfg. Co.	Lancaster, Pa.
Ruggles	1, 1½, 1½, 2, 2½, 3-Bus	Ruggles Motor Truck Co.	Saginaw, Mich.
Rumely	1½	Advance Rumely Thresher Co.	Laporte, Ind.
Safeway Six Wheeler	1, 1½, 2, 2½, 3½, 5	The Six Wheel Co.	Philadelphia, Pa.
Sandow	1, 1½, 2, 2½, 3½, 5	Sandow Motor Truck Co.	Chicago Heights, Ill.
Sanford	1½, 1½, 2½, 3½, 5	Sanford Motor Co.	Syracuse, N. Y.
Saurer	6-T. T.	Adolph Saurer, Inc.	New York, N. Y.
Schacht	1, 3½, 2, 2½, 3, 3½, 4, 5-Bus	G. A. Schacht Motor Truck Co.	Cincinnati, Ohio.
Selden	1½, 2, 2½, 2½, 3, 3½, 4, 5-Bus	Selden Truck Corp.	Rochester, N. Y.
Service	1, 1½, 2½, 3½, 5	Service Motors, Inc.	Wabash, Ind.
Standard	1½, 1½, 2½, 3½, 5	Standard Motor Truck Co.	Detroit, Mich.
Star	¾	Durant Motor Co. of N. J.	Elizabeth, N. J.
Steinmetz (Elec.)	1, 1½, 2, 2½, 3, 4, 5, 10-T. T. Bus	Steinmetz Electric Motor Corp.	Arlington, Balti-more, Md.
Sterling	1½, 2, 2½, 3, 4, 5, 10-T. T. Bus	Sterling Motor Truck Co.	Milwaukee, Wis.
Stewart	1, 1½, 2, 2½, 3, 3½, 4	Stewart Motor Corp.	Buffalo, N. Y.
Stoughton	1½, 1½, 2, 3, 3½, 5	Stoughton Wagon Co.	Stoughton, Wis.
Super Truck	2½, 3, 3½, 5	O'Connell Motor Truck Co.	Waukegan, Ill.
Traffo	1½, 2, 3	Traffo Motor Truck Corp.	St. Louis, Mo.
Traylor	1½, 3, 5	Traylor Eng. & Mfg. Co.	Allentown, Pa.
Twin City	2½, 3½-Bus	Minneapolis Steel & Machinery Co.	Minneapolis, Minn.
U. S.	1½, 1½, 2, 2½, 3, 4, 5, 7	United States Motor Truck Co.	Cincinnati, Ohio
Union	1½, 2½, 4, 5-Bus	Union Motor Truck Co.	Bay City, Mich.
United	1, 1½, 1½, 2, 2½, 3, 5	United Motor Products Co.	Grand Rapids, Mich.
Uppercu	Bus	Aeromarine Plane & Motor Co., Inc.	Keyport, N. J.
Victor	1½, 1½, 2, 2½, 3, 3½, 5, 6	Victor Motors, Inc.	St. Louis, Mo.
Wachusett	1, 1½, 2, 2½, 3, 3½, 5	Wachusett Motors, Inc.	Fitchburg, Mass.
Walker (Elec.)	¾, ¾, 1, 2, 3½, 5-T. T.	Walker Vehicle Co.	Chicago, Ill.
Walter (Elec.)	750 lbs. to 7 ton	Walter Motor Truck Co.	Long Island City, N. Y.
Ward (Elec.)	2½, 3½, 5, 7-Bus	Ward Motor Vehicle Co.	Mt. Vernon, N. Y.
Ward La France	¾, 2, 2½, 3½, 5-Bus	Ward La France Truck Corp.	Elmira, N. Y.
White	1, 1½, 2½, 3½, 5-Bus	White Co.	Cleveland, Ohio
Wilcox	1, 1½, 2½, 3½, 5-Bus	Wilcox Trux, Inc.	Minneapolis, Minn.
Winther	1½, 2½, 3, 3½, 5	Winther Motor Co.	Kenosha, Wis.
Witt Will	1½, 2, 2½, 3, 4, 5	Witt Will Co., Inc.	Washington, D. C.
Yellow Cab	¾, 1-Bus	Yellow Truck & Coach Mfg. Co.	Chicago, Ill.

Motor Bus Chassis Designed Exclusively

For Other Chassis Which Are Recommended and Adaptable for Bus Use,

Line Number	MAKE AND MODEL	GENERAL						ENGINE						ELECTRICAL SYSTEM						NORMAL SPEED					
		Seating Capacity	Chassis Price	Weights			Tread	Make and Model	Number of Cylinders Bore and Stroke	Rated Horse Power N.A.C.C.	Valve Arrangement	Oiling System	Radiator Make	Fuel System		Ignition System Make	Generator and Starter Make	Battery		Voltage and Amp. Hr. Cap.	High M. P. H.	Low M. P. H.			
				Chassis Only	Chassis with Body	Recommended Body Allowance								Wheelbase	Front			Rear	Carburetor Make				Fuel Feed	Make	Model
1	Ace C.....	30	4850	6500	11500	5000	204	70	80 1/2	Cont 7T	6-4 1/2 x 5 1/4	40.8	I	PC	Own	Zen	V	Eis	Rem	USL	3HVX8X	6-110	6.0	35	
2	Acme 116.....	18	4910	8460	.....	180	58	68	68	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Per	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
3	Acme 118.....	22	5110	9280	.....	205	58	68	68	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Pen	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
4	Bridgeport 45.....	30	3850	5500	.....	178	60	72	60	Buda EBU	4-4 1/2 x 5 1/2	28.9	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
5	Brockway FB.....	18	3850	6350	2500	153	8	8	8	Wisc SU	1-4 x 5	25.6	L	FP	G&O	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
6	Brockway EB4.....	18	4000	6400	2500	153	58	58	58	Wisc 6Y	6-3 3/4 x 5	33.7	L	FP	G&O	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
7	Brockway H.....	22	4975	7975	3000	164	60	65 1/2	60	Cont 6B	6-3 3/4 x 5	33.7	L	FP	G&O	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
8	Brockway J.....	25	6585	10585	4000	185	66 1/2	71	71	Cont 6H	6-3 3/4 x 5	33.7	L	FP	G&O	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45
9	Clinton 65B.....	30	4075	5925	8700	2725	184	58 1/2	58 1/2	Buda EBU	4-4 1/2 x 5 1/2	28.9	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45	
10	Clinton 65BS.....	35	4800	6600	9600	3000	220	68	76 1/2	Buda YBU	4-4 1/2 x 5 1/2	32.4	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45	
11	Commerce 60.....	25	6000	8000	3000	229	68	75	75	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Lon	Zen	V	Eis	Del	Wil	SJRT 4	6-153	35	6.0	
12	Commerce 65.....	29	6500	8500	3000	242	68	75	75	Cont 14H	6-4 1/2 x 5 1/2	48.6	L	PC	Lon	Zen	V	Eis	Del	Wil	SJRT 30	12-153	35	5.0	
13	Concord.....	25	5500	7500	2500	168	58 1/2	58 1/2	58 1/2	Buda BUS	4-4 1/2 x 5 1/2	38.0	L	PC	Own	Zen	V	Eis	Del	Wil	6LXRE13-3	12-240	42	6.5	
14	Day-Elder 20.....	18	5200	7700	2500	168	56	58	58	Buda KBU	4-4 1/2 x 5 1/2	38.0	L	PC	Bus	Zen	V	Eis	Del	Wil	SJRT 6	6-153	35	7.0	
15	Day-Elder 25.....	22	5600	8600	3000	180	58	58 1/2	58 1/2	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Bus	Zen	V	Eis	Del	Wil	SJRT 6	6-153	35	10.0	
16	Day-Elder 30.....	25	7000	11000	4000	196	68 1/2	74	74	Buda BUS	4-4 1/2 x 5 1/2	38.4	L	PC	Bus	Zen	V	Eis	Del	Wil	SJRT 6	12-153	35	7.0	
17	Denby 36.....	30	7000	10500	3500	216	74	74	74	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Lon	Zen	V	Eis	Del	Wil	SJRT 30	12-153	30	7.0	
18	Dorris L-6.....	25	5450	10300	224	72 1/2	68	72 1/2	68	Own	6-4 x 5	38.4	L	PC	Mod	Str	V	Eis	Del	Wil	SJRT30	12-135	40	5.0	
19	Duplex FB.....	23	5500	7500	2500	181	58	72	72	Buda EBU	4-4 1/2 x 5 1/2	28.9	L	PC	Mod	Zen	V	Eis	Del	Wil	SJRT30	6-220	35	10.0	
20	Fageol Parlor Car.....	22	6000	8770	10550	30	72	78 1/2	78 1/2	Has 75	6-4 1/2 x 5 1/2	43.6	L	PC	Lon	Zen	V	Eis	Del	Wil	6LXRE13-3	12-240	35	7.0	
21	Fageol Street Car.....	20	5300	6480	10000	218	70	78 1/2	78 1/2	Has 50	6-4 1/2 x 5 1/2	28.9	L	PC	Lon	Zen	V	Eis	Del	Wil	6LXRE13-3	12-240	35	7.0	
22	Federal.....	25	5450	10300	224	72 1/2	68	72 1/2	68	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Mod	Zen	V	Eis	Del	Wil	SJRT 30	6-185	35	7.0	
23	Fifth Ave. J.....	25	5850	8530	2780	172	67 1/2	71 1/2	71 1/2	Yell EZ	1-4 x 6	25.6	L	PC	Own	Zen	V	Eis	Del	Wil	STRN27	12-90	30	6.5	
24	Fifth Ave. L.....	25	6850	12040	5190	174 1/2	77	77 1/2	77 1/2	Yell EZ	1-4 x 6	25.6	L	PC	Own	Zen	V	Eis	Del	Wil	STRN27	12-90	27	5.0	
25	Garford 51D.....	29	6500	9900	1400	187	38	80	80	Buda BUS	4-4 1/2 x 5 1/2	38.0	L	PC	Own	Str	V	Eis	Del	Wil	STRN6	6-190	35	5.0	
26	Garford KB.....	17	3600	6000	2400	180	58	59 1/2	59 1/2	Wis Y	6-3 3/4 x 5	27.3	I	FP	Lon	Zen	V	A-L	A-L	Wil	SJRT-5	6-135	35	7.3	
27	Garford CB.....	19	6900	11300	4400	220	72	76	76	Wis Z	6-4 1/2 x 5 1/2	48.6	L	FP	Lon	Zen	V	A-L	A-L	Wil	SJRT-30	12-153	57	11.9	
28	Gary 45B.....	40	5500	8500	3000	220	68	72	72	Bud GL6	6-4 1/2 x 5 1/2	48.6	L	PC	Chi	Str	V	Rem	Rem	Wil	SJRT-6	6-153	45	45	
29	Graham Bros. YB.....	21	1600	3700	6200	2500	158	56	56	Dodge	4-3 3/4 x 4 1/2	24.0	L	PS	McC	Ste	V	N-E	N-E	Exi	6LXR11-1	12-90	30	4.0	
30	Graham & Kincaid 6-15-3.....	15	1753	3100	5100	2000	164	57	58	Con SR	6-3 3/4 x 5 1/2	27.3	L	PC	Own	Zen	V	A-L	A-L	USL	6-135	50	5.0		
31	Graham & Kincaid 6-20-3.....	20	2760	3800	6300	2500	184	57	58	Con 6B	6-3 3/4 x 5	33.8	L	PC	Own	Zen	V	A-L	A-L	USL	6-135	50	5.0		
32	Graham & Kincaid 6-25-3.....	25	3100	3900	6400	2500	184	57	58	Con 6B	6-3 3/4 x 5	33.8	L	PC	Own	Zen	V	A-L	A-L	USL	6-135	50	5.0		
33	Grass Premier ZR3.....	22	5200	5150	8600	3500	200	70	76 1/2	Wau	6-4 1/2 x 5 1/2	45.9	L	PC	Chi	Str	V	Eis	Del	Wil	SJRT-6	6-153	45	45	
34	Gulder 20.....	17	2500	3650	5150	152	56	56	56	Cont SR	6-3 3/4 x 5 1/2	27.3	L	G&O	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45		
35	Gulder 36.....	25	4850	6000	8200	204	68	72	72	Buda BUS	4-4 1/2 x 5 1/2	38.0	L	G&O	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45		
36	Hahn.....	20	4600	8200	186	56	60	60	60	Con	6-3 3/4 x 5	33.7	L	Chi	Sch	Bos	N-E	WIL	SJRT-6	6-153	45	45			
37	Hahn.....	30	6500	9600	245	68	72	72	72	Con	6-4 1/2 x 5 1/2	48.6	L	Chi	Sch	Bos	N-E	WIL	SJRT-6	6-153	45	45			
38	International SL.....	16	4500	5200	7780	2400	202	64 1/2	64 1/2	Lyc Spec	4-4 1/2 x 5 1/2	19.6	L	PC	Own	G	Con	A-L	Pol	6-100	35	5.0			
39	Kissel.....	18	4500	5200	7780	2400	202	64 1/2	64 1/2	Lyc Spec	4-4 1/2 x 5 1/2	19.6	L	PC	Own	G	Con	A-L	Pol	6-100	35	5.0			
40	Larrabee X-2, L-10.....	15	1965	3450	4850	1400	155	56	56	Cont 8R	6-3 3/4 x 4 1/2	27.3	L	PC	Fed	Zen	V	Bos	Bos	Exi	3XE15	6-80	40	8.0	
41	Larrabee XH4.....	25	6980	10000	3000	220	64	72	72	Cont 6B	6-3 3/4 x 5	33.7	L	PC	Fed	Zen	V	Bos	Bos	Exi	6LXR13-1	12-240	35	5.0	
42	Maccar.....	25	7500	12000	4500	228 1/2	73	77	77	Buda BUS	4-4 1/2 x 5 1/2	38.4	L	PC	Bus	Str	V	DJ	Bos	Pol	615KPK	6-240	40	7.5	
43	Mack AB.....	25	5000	9500	3500	194	59	59	59	Own AB	4-4 1/2 x 5 1/2	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXR13	12-120	25	5.0	
44	Mack AB.....	29	5000	9500	3500	194	59	59	59	Own AB	4-4 1/2 x 5 1/2	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXR13	12-120	25	5.0	
45	Mack AB.....	25	5000	9500	3500	194	59	59	59	Own AB	4-4 1/2 x 5 1/2	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXR13	12-120	25	5.0	
46	Meister.....	18	4290	7500	3200	175	60	58	58	Wisc Y	6-3 3/4 x 5	27.3	L	PC	Own	Zen	V	Rem	Rem	Wil	SJRT-6	6-153	45	45	
47	Menominee T.....	25	6020	9100	3200	186	58	73	73	Wisc TAI	4-4 x 6	25.6	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45	
48	Menominee DB.....	25	6020	9100	3200	186	58	73	73	Wisc TAI	4-4 x 6	25.6	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	45	
49	Moreland RC.....	25	780	1590	790	300	178	31	38	Cont K4	4-4 1/2 x 5 1/2	27.3	L	FP	Own	Sch	V	Spl	Hob	Hob	6HTXR15A	6-140	25	5.0	
50	Moreland EC.....	25	780	1590	790	300	178	31	38	Cont K4	4-4 1/2 x 5 1/2	27.3	L	FP	Own	Sch	V	Spl	Hob	Hob	6HTXR15A	6-140	25	5.0	
51	Moreland AC.....	25	780	1590	790	300	178	31	38	Cont K4	4-4 1/2 x 5 1/2	27.3	L	FP	Own	Sch	V	Spl	Hob	Hob	6HTXR15A	6-140	25	5.0	
52	Pierce-Arrow Z.....	25	4600	6100																					

sively for Passenger Transportation

See Models Having Sign (\$) in the "COMMERCIAL CAR SPECIFICATIONS"

Line Number	TRANSMISSION				REAR AXLE					Front Axle Make and Model	Steering Gear Make	TIRES AND WHEELS				DIMENSIONS (In.)						
	Clutch	Gearset		Universal	Make and Model	Final Drive	Type	Gear Ratio				Service Brake Type and Location	Tires (in.)	Wheels—Make	Rims—Make	Floor Height	Turning Radius	Overall		Clearance from Ground		
		Type and Make	Make and Model					Location	Number of Forward Speeds									Make	Total in High		Total in Low	Length	Width
1	D. B. L.	B. L. 60	U	4	U-M	Tim 6516	Wo	F	5.4	26.6	I-R	Tim 1550	Ros	36x6	36x6†	Day	Fir	27½	34	316	90	9¼
2	D. B. L.	B. L. 51	U	4	Blo	Cla B6000	.....	.....	5.5	26.4	I-R	Shu	Ros	34x7*	34x7*	Smi	Fir	21½	250	83½	9¼	9¼
3	D. B. L.	B. L. 51	U	4	Blo	Cla B6000	.....	.....	5.5	26.4	I-R	Shu	Ros	34x7*	34x7*	Smi	Fir	21½	276	83½	9¼	9¼
4	D. B. L.	B. L. 50	U	4	Spi	Col 53000	B	.....	6.7	.....	I-R	She Spec	tos	36x6*	36x6*	Bud	.....	31½	28	243	64	9
5	D. B. L.	B. L. 30	U	3	Spi	Col 53000	B	.....	5.1	.....	E-R	Col 5200	Gern	32x6	32x6	Van	Fir	28½	28	243	64	9
6	D. B. L.	B. L. 55	U	4	Spi	Huck 25	B	.....	6.6	.....	.....	Shu 5550	Ros	32x6	32x6†	Bud	Fir	28½	30	256	74	8½
7	D. B. L.	B. L. 55	U	4	Spi	Tim 6516	lg	.....	7.7	.....	.....	Shu 610B	Ros	36x6	36x6†	Bud	ir	27½	32	256½	90	7½
8	D. B. L.	B. L. 55	U	4	M-E	Tim 3566	Wo	.....	6.5	34.8	I-R	Tim 1544B	Ros	36x6*	36x6†	Bud	Fir	30	37	270	75½	9¼
9	D. B. L.	B. L. 55	U	4	M-E	Tim 6516	Wo	.....	6.7	36.1	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	26	40	286	90	7
10	D. B. L.	B. L. 55	U	4	M-E	Tim 6516	Wo	.....	6.8	27.2	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	20½	330	88½	7½	7½
11	D. B. L.	B. L. 60H	A	4	Blo	Tim 6516	Wo	.....	5.4	21.6	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	20½	343	88½	7	7
12	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	.....	6.0	32.1	I-R	Tim 1544	Ros	36x6	36x6†	Bud	Fir	32	.....	.....	9	9
13	D. B. L.	B. L. 35	U	3	Spi	Tim 6462	Wo	.....	6.5	21.8	I-R	Tim 1526	iem	36x6*	34x7*	an	Fir	42	30	246½	70½	11
14	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	.....	6.7	36.1	I-R	Tim 1544	iem	36x6*	36x6*	Bud	Fir	32	30	260	75½	12
15	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	.....	6.7	36.1	I-R	Tim 1544	iem	36x6*	36x6*	Bud	Fir	32	30	260	75½	12
16	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	.....	6.7	36.1	I-R	Tim 1544	iem	36x6*	36x6*	Bud	Fir	32	30	260	75½	12
17	D. Ful	Ful GU14	U	4	Blo	Huck 85	R	.....	5.7	30.6	I-R	She D 445	iem	36x6*	36x6*	Bud	.....	25	27	293	90	10½
18	D. B. L.	B. L. 55	U	4	Blo	Cla 3D	lg	.....	7.0	33.6	I-R	Shu 610B	Ros	36x6*	36x6†	Bud	Fir	21	34	294	91	8
19	D. B. L.	B. L.	U	4	Pet	Wis	R	.....	4.8	.....	I-R	Tim 1560	Ros	34x7*	36x8*	Bud	.....	24	36	309	90	8
20	D. B. L.	B. L.	U	4	Pet	Vu 14	Wo	.....	6.5	32.1	I-R	Shu	Ros	34x5	34x5†	lot	Fir	27	28	268	82	9
21	D. B. L.	B. L. 55	U	4	Spi	Tim 6516	Wo	.....	4.1	19.7	I-R	Tim 1550	Ros	36x6*	36x6†	Bud	.....	20½	38½	242	89	7½
22	D. B. L.	B. L. 50	U	4	Spi	Tim 6516	Wo	.....	4.6	19.7	I-R	Tim 1524	Ros	36x6*	36x6†	Bud	.....	22½	38	339	89	7½
23	P. B. & B.	Det R400	S	4	Spi	Tim 6566	Wo	.....	6.7	39.8	.....	Own	iem	36x6*	36x8*	mi	Fir	40	28	266½	.....	10
24	P. Own	Own J	S	4	Sne	Tim 6412	lg	.....	5.4	21.6	I-R	Tim 1523	Ros	36x6*	36x6†	Bud	.....	29	33	277	87½	7
25	P. Own	Own L	S	4	Sne	Own L	Wo	.....	6.1	.....	E-D	Own L	Ros	36x6†	36x6†	Jwn	.....	25	33	296	90	6
26	P. Own	Own 51D	S&U	8	Spi	Tim 6516	Wo	.....	5.4	26.1	I-R	Tim 1550	Ros	36x6*	36x6†	.....	Fir	28½	30	295	91	7
27	D. B. L.	B. L. 31	U	3	U-M	Tim 5516H	B	.....	5.3	21.3	I-F	Tim 2341H	Lav	32x6	32x6	Day	Fir	23	28	.....	84	9
28	D. B. L.	B. L. 60S	U	4	Spi	Tim	Wo	.....	4.8	16.7	I-F	Tim 1560C	Ros	36x6	36x6†	Bud	Fir	23	35	298	.....	6½
29	Ful	Ful	U	4	Spi	Tim	Wo	.....	.....	.....	.....	Tim	Ros	36x6*	36x6†	Bud	Fir	26	.....	.....	.....	.....
30	D. Dodge	Dodge	U	3	UP	Own	SP	.....	6.3	26.3	I-R	Own	Dodge	32x6	34x7	Smi	Fir	26	29½	248	86	.....
31	Cov	Cov	U	3	Thei	Eat	B	.....	5.33	21.3	I-F	Col	Ros	30x5	30x5	.....	Fir	28½	25	.....	9	9
32	Cov	Cov	U	3	Thei	Eat	B	.....	5.33	21.3	I-F	Col	Ros	32x6	32x6	Smi	Fir	21	28	247	9	9
33	Cov	Cov	U	3	Thei	Wis	R	.....	5.33	21.3	I-F	Col	Ros	32x6	34x7	Smi	Fir	22	28	247	9	9
34	D. B. L.	B. L. 51	S	7	Spi	Tim 6566	Wo	.....	4.6	.....	I-F	Con	Ros	32x6	32x6†	Van	Fir	22	33	298	89	7
35	D. B. L.	B. L. 31	.....	4	.....	.....	B	.....	.....	.....	.....	Shu 5410	Ros	36x5	33x5*	Bud	.....	25	.....	.....	.....	.....
36	B. L.	B. L. 51	.....	4	Spi	Wis	.....	.....	5.0	.....	I-R	She D484	Ros	32x6	32x6	Bud	Fir	25	20	250	84	8½
37	B. L.	B. L. 60	.....	4	Spi	Tim	lg	.....	6.0	.....	I-R	She D445	Ros	34x7	34x7	Bud	Fir	30	30	336	90	9
38	D. Mun	Mun	U	3	Own	Eat	lg	.....	5.4	.....	I-R	Eat	Own	33x5	33x5	Own	.....	24	.....	217	56	.....
39	D. B. L.	B. L. 35	U	4	Spi	Wis 60B	R	.....	5.8	19.0	I-R	Shu 610	Ros	34x7*	34x7*	Whi	Gdy	24	.....	252	76	8
40	D. B. L.	B. L. 31	U	3	Sne	Sal D	B	.....	7.7	27.6	E-R	Sal	Gern	34x5	34x5	Ind	Fir	29	27	220	70	11
41	D. B. L.	B. L. 31	U	3	Spi	She	W	.....	5.5	26.4	I-R	Shu 5550B	Ros	32x6	32x6†	Bud	.....	25	28	262	86	9
42	D. B. L.	B. L. 55	U	4	Spi	Huck 85	R	.....	6.65	35.8	I-R	Shu D 445	Ros	34x7	34x7*	Bud	Fir	27½	41	312½	92½	7½
43	D. Own	Own AB	U	4	Spi	Own AB	R	.....	Opt	Opt	I-R	Own AB	Own	32x6†	32x6†	Bud	Fir	25½	28	228	78½	8½
44	D. Own	Own AB	U	4	Spi	Own AB	R	.....	Opt	Opt	I-R	Own AB	Own	32x6†	32x6†	Bud	Fir	25½	32	317½	78½	8½
45	D. Own	Own AB	U	4	Spi	Own AB	R	.....	Opt	Opt	I-R	Own AB	Own	32x6†	32x6†	Bud	Fir	27½	32½	307½	78½	10½
46	D. Ful	Ful GU7	U	4	Spi	Wal 25A	R	.....	7.6	37.0	-R	Shu 610	Ros	36x6	36x6*	an	Fir	26	33½	.....	.....	.....
47	D. Det	Cot AAU	U	3	Spi	Wis	R	.....	.....	.....	I-R	Shu	Ros	32x6*	32x6†	Ind	.....	23½	28	.....	10	10
48	D. Det	Cot AU	U	3	Spi	Wis 120K	R	.....	6.1	32.0	I-R	Tim 1550	Ros	36x6*	36x6†	Ind	Fir	26	30	256	86	10
49	D. B. L.	B. L. 30	U	4	Pet	Tim 5512	Wo	.....	5.5	22.0	E-R	Tim 1250	Ros	32x6	32x6	Jwn	Gdy	23½	.....	.....	.....	.....
50	D. B. L.	B. L. 51	U	4	Pet	Tim 6410	Wo	.....	6.0	32.1	I-R	Tim 1550	Ros	34x5*	34x5†	Bud	.....	24½	.....	.....	.....	.....
51	D. B. L.	B. L. 51	U	4	Pet	Tim 6511	Wo	.....	6.0	32.1	I-R	Tim 1550	Ros	36x6*	36x6*	Bud	.....	25½	.....	.....	.....	.....
52	Own	Own W	A	4	Spi	Own W	Wo	.....	6.0	32.0	E-D	Own	Own	36x6*	36x6†	Bud	.....	28	37½	282	89½	8
53	Own	Own W	A	4	Spi	Own W	Wo	.....	6.0	32.0	E-D	Own	Own	36x6*	36x6†	Bud	.....	28	40	303	89½	8
54	Own	Own W	S	3	Own	Own W	SP	.....	5.7	21.0	E-R	Own W	Own	32x6	34x7	Bud	.....	28½	31	278	85	8½
55	Own	Own W	S	3	Own	Own W	SP	.....	5.7	21.0	E-R	Own W	Own	32x6	32x6†	Bud	.....	28½	31	264½	88½	8½
56	Ful	Ful	U	3	Spi	Eat	lg	.....	6.2	25.0	E-D	Eat	Jac	34x7	34x7	Van	Fir	21	.....	270½	67½	7½
57	D. B. L.	B. L.	U	4	.....	Wis 460	S	.....	5.50	27.3	A	Shu 5550	Jac	30x5	30x5	Bud	Fir	24	28	272	90	9
58	D. B. L.	B. L.	U	4	.....	Wis 66	S	.....	5.83	23.3	A	Shu 5550B	Jac	32x6	32x6	Bud	Fir	24	30	287	90	9
59	D. B. L.	B. L. 60	U	4	.....	Wis 66	S	.....	5.83	23.3	A	Shu 5550B	Jac	32x6	32x6	Bud	Fir	24	32	310	90	9
60	B. L.	B. L.	U	4	Blo	Tim 6422	Wo	.....	.....	.....	I-R	Tim 1550	Ros	34x7	34x7	Bud	.....	22½	35	320¼	88½	.....
61	B. L.	B. L.																				

KEY OF ABBREVIATIONS

Wheelbase:

*—More than one wheelbase furnished.

Tires:

§§—Unless marked otherwise all tires are solids.
 *—Pneumatics standard equipment.
 †—Pneumatics at Extra Cost.
 ‡—Dual on Rear.

Engine:

Bud—Buda Co., Harvey, Ill.
 Con—Continental M. Corp., Detroit, Mich.
 D—Head & Side
 GBS—Golden, Belknap & Swartz Co., Detroit, Mich.
 H—Overhead.
 HaS—Hall-Scott Motor Car Co., Berkeley, Cal.
 Her—Hercules M. Mfg. Co., Canton, Ohio.
 Himico—Hinkley Motors, Inc., Detroit, Mich.
 Hin—Hinkley Motors, Inc., Detroit, Mich.
 H-S—Herschell-Spillman Motor Co., North Tonawanda, N. Y.
 Jackson—Master Motor Truck Mfg. Co., Chicago, Ill.
 Kni—Yellow Sleeve Valve Eng. Works, East Moline, Ill.
 L—L-Head.
 Lye—Lycoming M. Corp., Williamsport, Pa.
 Mid—Midwest Eng. Co., Indianapolis, Ind.
 FP—Full Pressure to all bearings including wrist pins.
 Overland—Willys-Overland Co., Toledo, O.
 PC—Pressure to all crankshaft and connecting rod bearings.
 PS—Pressure with splash.
 SP—Circulating splash.
 T—T-Head.
 Wau—Waukesha M. Co., Waukesha, Wis.
 Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.
 X—Sleeve.

Governor:

Con—Continental M. Corp., Detroit, Mich.
 Dup—Duplex Eng. Gov. Co., Brooklyn, N. Y.
 Han—Handy Gov. Co., Detroit, Mich.
 Hin—Hinkley Motors, Inc., Detroit, Mich.
 K. P.—K. P. Products Co., New York, N. Y.
 McK—E. R. Klemm, Chicago, Ill.
 Mon—Monarch Gov. Co., Detroit, Mich.
 Non—Not Supplied.
 Pha—Pharo Mfg. Co., Detroit, Mich.
 Pie—Pierce Governor Co., Anderson, Ind.
 Sim—Duplex Eng. Gov. Co., Brooklyn, N. Y.
 Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:

Bus—Bush Mfg. Co., Hartford, Conn.
 Chi—Chicago Mfg. Co., Chicago, Ill.
 E-M—English & Mersick Co., New Haven, Conn.
 Fed—Fedders Mfg. Co., Buffalo, N. Y.
 Fle—Flexo Mfg. Co., Los Angeles, Cal.
 G&O—G. & O. Mfg. Co., New Haven, Conn.
 Har—Harrison Rad. Corp., Lockport, N. Y.
 Idl—Ideal Sheet Metal Works, Chicago, Ill.
 Liv—Livingston Radiator Corp., Plainfield, N. J.
 Lon—Long Mfg. Co., Detroit, Mich.
 McC—McCord Rad. & Mfg. Co., Detroit, Mich.
 Mod—Modine Mfg. Co., Racine, Wis.
 Per—Racine Radiator Co., Racine, Wis.
 R-T—Rome-Turney Rad. Co., Rome, N. Y.
 Stn—Standard Radiator Co., Inc., Springfield, N. Y.
 U. S.—U. S. Cartridge Co., Lowell, Mass.

Fuel System:

Car—Carter Carburetor Co., St. Louis, Mo.
 Ens—Ensign Car. Co., Los Angeles, Cal.
 G—Gravity.
 Hol—Holley Carburetor Co., St. Louis, Mo.
 Joh—Johnson Co., Detroit, Mich.
 Mar—Marvel Carburetor Co., Flint, Mich.
 P—Pressure.
 Ray—Beneke & Kropf Mfg. Co., Chicago, Ill.
 Sch—Wheeler Schebler Carburetor Co., Indianapolis, Ind.
 Ste—Detroit Lubricator Co., Detroit, Mich.
 Str—Stromberg Motor Devices Co., Chicago, Ill.
 Til—Tillotson Mfg. Co., Toledo, Ohio.
 V—Vacuum.
 Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical System:

‡—Generator & Starter at Extra Cost.
 †—Starter not Supplied, Generator at Extra Cost.
 *—Starter at Extra Cost.
 A-L—Electric Auto-Lite Corp., Toledo, O.
 Apo—Apollo Magneto Corp., Apollo, Pa.
 Bij—Bijur Motor Appliance Co., Hoboken, N. J.
 Bos—American Bosch Magneto Co., Springfield, Mass.
 Con—Connecticut Telephone & Electric Co., Meriden, Conn.
 Del—Dayton Engin. Lab. Co., Dayton, Ohio.
 Dyn—Owen Dyneto Corp., Syracuse, N. Y.
 Eis—Eisemann Magneto Corp., Brooklyn, G&D—Gray & Davis, Boston, Mass.
 L-N—Leece-Neville Co., Cleveland, O.
 N-E—North East Elec. Co., Rochester, N. Y.
 Non—Not Supplied.
 Rem—Remy Electric Co., Anderson, Ind.
 RBo—Robert Bosch Magneto Co., New York, N. Y.
 Sci—Scintilla Magneto Co., New York, N. Y.
 Sim—Simms Magneto Co., E. Orange, N. J.
 Spl—Splittorf Electrical Co., Newark, N. J.
 Ves—Vesta Battery Corp., Chicago, Ill.
 Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.

Clutch and Gearset:

*—Other ratios optional.
 A—Amidships.
 B & B—Borg & Beck Co., Chicago, Ill.
 B-L—Brown-Lipe Gear Co., Syracuse, N. Y.
 Cot—Cotta Transmission Corp., Rockford, Ill.
 Cov—Covert Gear Co., Lockport, N. Y.
 Det—A. J. Detlaff Co., Detroit, Mich.
 D-G—Detroit Gear & Machine Co., Detroit, Mich.
 Dod—Dodge Brothers Co., Detroit, Mich.
 D-Disk.
 Dur—Durstion Gear Corp., Syracuse, N. Y.
 Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.
 H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.
 Hoo—Hoosier Clutch Co., Muncie, Ind.
 J—Unit with Jackshaft.
 K—Cone.
 Lon—Long Mfg. Co., Detroit, Mich.
 M-E—Merchant & Evans Co., Phila., Pa.
 Mun—Muncie Gear Works, Muncie, Ind.
 O—Disk in Oil.
 P—Plate.
 R—Rear Axle.
 U—Unit with Engine.
 W-G—Warner Gear Co., Muncie, Ind.

Universal:

B.G.—Universal Machine Co., Bowling Green, Ohio.
 Bio—Blood-Bros. Mach. Co., Allegan, Mich.
 Det—Universal Products Co., Detroit, Mich.
 Har—Hartford Auto Parts Corp., Hartford, Conn.
 M-E—Merchant & Evans Co., Phila., Pa.
 M. M.—Mechanics Machine Co., Rockford, Ill.
 Pet—Cleveland Universal Parts Co., Cleveland, Ohio.
 Pic—Carl Pick Co., West Bend, Wis.
 Sne—Snead & Co., Jersey City, N. J.
 Spl—Spicer Mfg. Corp., S. Plainfield, N. J.
 The—Thermoid Rubber Co., Trenton, N. J.
 Thei—Universal Drive Shaft Co., Cleveland, Ohio.
 U-M—Universal Machine Co., Bowling Green, Ohio.
 U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:

½—Semi-Floating.
 ¾—Three-Quarter Floating.
 Cla—Clark Equip. Co., Buchanan, Mich.
 Col—Columbia Axle Co., Cleveland, O.
 Con—Continental Axle Co., Edgerton, Wis.
 C—Chain.
 B—Straight Bevel.
 D—Dead.
 Eat—Eaton Axle Co., Cleveland, Ohio.
 F—Floating.
 I—Internal Gear.
 P—Spur Gear.
 R—Double Reduction.
 Rus—Russel Motor Axle Co., Detroit, Mich.
 S—Spiral Bevel.
 Sal—Salisbury Axle Co., Jamestown, N. Y.
 She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
 Shu—Shuler Axle Co., Inc., Louisville, Ky.
 Std—Standard Parts Co., Cleveland, O.

Tim—Timken Detroit Axle Co., Detroit, Mich.
 Tor—Eaton Axle & Spring Co., Cleveland, Ohio.
 Vul—Vulcan Motor Axle Co.
 Wal—Walker Axle Co., Chicago, Ill.
 W—Worm.
 Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:

A—Rear Wheels only.
 B—Drive Shaft and Rear Wheels.
 C—Front and Rear Wheel.
 D—Jackshaft and Rear Wheels.
 E—4 Wheel Brakes.

Springs:

Amc—American Auto Parts Co., Detroit, Mich.
 Arm—General Motors Co., Pontiac, Mich.
 Bea—Beans Spring Co., Inc., Massillon, O.
 Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.
 Cha—Champion Auto Sp. Co., St. Louis, Mo.
 Del—D. Delany & Son, Newark, N. J.
 Det—Detroit Steel Prod. Co., Detroit, Mich.
 G-C—Garden City Sp. Works, Chicago, Ill.
 Har—Harvey Sp. & Forging Co., Racine, Wis.
 Lah—Laher Auto Spring Co., Portland, Ore.
 Mar—Maremont Mfg. Co., Chicago, Ill.
 Mat—Mather Spring Co., Toledo, O.
 Mer—E. R. Merrill Spring Co., New York.
 Pen—Penn Sp. Works, Baldwinville, N. Y.
 Per—Perfection Sp. Co., Cleveland, O.
 Row—William & Harvey Rowland, Phila, Pa.
 She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.
 S. P.—Spring Perch Co., Stratford, Conn.
 S. S.—Standard Steel Sp. Co., Coraopolis, Pa.
 Tut—Tuthill Sp. Co., Chicago, Ill.
 U. S.—United States Sp. Co., Los Angeles, Cal.

Steering Gear:

CAS—C. A. S. Products Co., Columbus, O.
 Dod—Dodge Bros. Co., Detroit, Mich.
 Gem—Gemmer Mfg. Co., Detroit, Mich.
 Jac—Saginaw Products Co., Saginaw, Mich.
 Lav—Lavine Gear Co., Milwaukee, Wis.
 Ros—Ross Gear & Tool Co., Lafayette, Ind.
 Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:

Arc—Archibald Wheel Co., Lawrence, Mass.
 A-W—Auto Wheel Co., Lansing, Mich.
 Bet—Bethlehem Steel Co., Bethlehem, Pa.
 Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.
 Bud—Budd Wheel Co., Phila., Pa.
 Cla—Clark Equip. Co., Buchanan, Mich.
 Day—Dayton Steel Foundry Co., Dayton, Ohio.
 Dis—Disteel Wheel Corp., Detroit, Mich.
 Hay—Hayes Wheel Co., Jackson, Mich.
 Hoc—Hoopce, Bro. & Darlington, Inc., West Chester, Pa.
 Ind—Indestructible Wheel Co., Lebanon, Ind.
 Int—Interstate Foundry Co., Chicago, Ill.
 Jon—Jones, Phineas & Co., Newark, N. J.
 Kel—Kelsey Wheel Co., Detroit, Mich.
 M-M—Michigan Malleable Iron Co., Detroit.
 Mot—Motor Wheel Corp., Lansing, Mich.
 Mun—Muncie Wheel Co., Muncie, Ind.
 Nor—Northern Wheel Corp., Alma, Mich.
 Pru—Prudden Wheel Co., Lansing, Mich.
 Roy—Royer Wheel Co., Aurora, Ind.
 Sch—Schwarz Wheel Co., Phila., Pa.
 Smi—Smith Wheel, Inc., Syracuse, N. Y.
 StM—St. Marys Wheel Co., St. Marys, Ind.
 Std—Standard Wheel Co., Terre Haute, Ind.
 Van—Van Wheel Corp., Onelda, N. Y.
 Way—Wayne Wheel Co., Newark, N. Y.

Rim Equipment:

Fir—Firestone Steel Products Co., Akron, Ohio.
 Gdv—Goodyear Tire & Rubber Co., Akron, Ohio.
 Hay—Hayes Wheel Co., Jackson, Mich.
 Jax—Jaxon Steel Prod. Co., Jackson, Mich.
 Kel—Kelsey Wheel Co., Detroit, Mich.
 Non—None Supplied.

NAME, MODEL AND TONNAGE	BRAKE LINING				FRAME				NAME, MODEL AND TONNAGE	BRAKE LINING				FRAME			
	Service		Emergency		Length	Width		Clearance at Lowest Point of Chassis		Service		Emergency		Length	Width		
	Length	Width	Thickness	No. of Pieces		Length	Width			Thickness	No. of Pieces	Length	Width		Thickness	No. of Pieces	
Ace 40-1½	12	3½	1½	4	12½	76½	215½	32	9	9½	32	4	125½	84½	112	34	10
Ace 60-3	13½	2½	1½	4	Opt	96½	241	34	9½	9½	34	4	Opt	131	207	33½	9½
Ame Flyer	23	2½	1½	4	108½	63½	189	34	8½	8½	34	4	108½	166	270½	33½	8½
Ame 201-1½	12	3½	1½	4	140½	79½	200	34	10½	10½	34	4	140½	102	270½	33½	8
Ame 601-3	13	3½	1½	4	153½	96½	235½	34	10	10	34	4	153½	115	318	38	10
Ame 901-5	15½	3½	1½	4	159½	99½	255	37	10½	10½	37	4	159½	91	242	38	10
Ame 125-6½	18	4	1½	4	132	81	261	37	10	10	37	4	132	180½	38	38	10
American-LaFrance W.	†	†	†	4	156	98	236	33	10	10	33	4	156	131	38	38	10
American-LaFrance W.	†	†	†	4	180	110	254	33	10	10	33	4	180	143	38	38	10
American-LaFrance W.	†	†	†	4	144	89	244	36	9	9	36	4	144	132	33	33	10
American-LaFrance Y.	11½	8	1½	4	168	103½	268½	36	9	9	36	4	168	117	34	34	10
American-LaFrance Y.	11½	8	1½	4	210½	124½	310½	36	9	9	36	4	210½	95	34	34	10
American-LaFrance Y.	11½	8	1½	4	190½	104½	284½	36	10	10	36	4	190½	109	34	34	10
American-LaFrance Y.	11½	8	1½	4	192½	113½	292½	36	10	10	36	4	192½	109	34	34	10
American-LaFrance V.	11½	8	1½	4	210½	125½	315½	36	10	10	36	4	210½	109	34	34	10
American-LaFrance V.	11½	8	1½	4	Opt	77½	258½	32	9½	9½	32	4	Opt	92½	193	34	9
Armleder 30-1½	11½	3½	1½	4	11½	71½	215½	32	10	10	32	4	11½	53½	210	34	15½
Armleder 50-2½	13	3½	1½	4	Opt	77½	258½	32	10	10	32	4	Opt	84	228½	34	15½
Atterbury 24-R	11	3½	1½	4	119½	76	211½	34	9½	9½	34	4	119½	59	196	34	11½
Atterbury 22C-2½	13½	3½	1½	4	129½	78½	225	34	9½	9½	34	4	129½	62	206	34	10
Atterbury 22D-3½	15½	3½	1½	4	145½	93½	242	37½	10½	10½	37½	4	145½	72	230	35	10½
Atterbury 24E	16½	3½	1½	4	159½	99½	263	37½	10½	10½	37½	4	159½	78	232	35	10½
Autocar XXI-F-1½	17	2½	1½	4	91	67	166	34	9½	9½	34	4	91	59	196	34	11½
Autocar XXI-G-1½	13½	2½	1½	4	114	90	179	34	10	10	34	4	114	103	196	34	11½
Autocar XXIV-M-6	23½	2½	1½	4	135½	80½	223½	34	10	10	34	4	135½	104	202	34	11½
Autocar XXVI-M-6	23½	2½	1½	4	175½	116½	269½	34	10	10	34	4	175½	110	206	34	10
Autocar XXVII-H-3	20½	2	1½	4	131½	76	213½	34	10½	10½	34	4	131½	72	206	34	10
Autocar XXVII-K-3	20½	2	1½	4	155½	100	237½	34	10½	10½	34	4	155½	78	230	35	10½
Available J-H-1½	48	2½	3½	4	120	80½	201½	32	9	9	32	4	120	132	232	35	10½
Available J-H-2½	13½	3½	1½	4	144	85½	226½	32	9	9	32	4	144	153	254	35	9
Available J-H-3½	16	4	1½	4	168	106½	254½	36	9	9	36	4	168	168	266	35	9
Available J-H-5	18	4	1½	4	168	112½	263½	36	9	9	36	4	168	168	268	38	10
Besemer G-1	46	2½	2½	4	98½	58½	182½	34	.....	.....	34	4	98½	105½	191	35	10½
Besemer H-2-1½	18½	2	2½	4	116	76	209	34	.....	.....	34	4	116	132½	218	34	9½
Besemer J2-2½	16½	2½	2½	4	142½	92½	223	34	.....	.....	34	4	142½	132½	218	35	10½
Bethlehem KN-1	20½	1½	2½	4	89½	56½	175	32	10½	10½	32	4	89½	115½	214½	35	10½
Bethlehem KN-2	51	2½	2½	4	116½	74	208½	34	8½	8½	34	4	116½	121	214½	37	10
Bethlehem L	51	3	2½	4	126	81½	226½	34	8½	8½	34	4	126	148	253	37	10
Bethlehem L	11	3	1½	4	136	90	246½	34	10	10	34	4	136	177	288	37	10
Bets J3-1	11	3	1½	4	126	90	246½	34	10	10	34	4	126	177	288	37	10
Bets D3-2½	12	3½	1½	4	136	90	246½	34	10	10	34	4	136	177	288	37	10
Biederman 20-1-1½	43	2½	2½	4	96	54	228	32	10	10	32	4	96	100	182½	34	34
Biederman 30-1½-2	12	3	1½	4	120	60	262	32	10	10	32	4	120	133	214	34	9½
Biederman 40-1½-2½	12	3	1½	4	168	108	276	32	10	10	32	4	168	133	214	35	10½
Biederman 60-2½-3½	13	3½	1½	4	193	120	300	32	10	10	32	4	193	133	214	35	10½
Biederman 80-3½-5	15½	3½	1½	4	115	61	234	32	10	10	32	4	115	133	214	35	10½
Brinton C-1½	39	2½	2½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10	10	34	4	136	177	288	37	10
Brookway R-12-3½	15½	3½	1½	4	136	81	226½	34	10</								

Replacement Table—Continued

NAME, MODEL AND TONNAGE	BRAKE LINING						FRAME					
	Service			Emergency			Length			Width		
	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat to Center of Rear Axle	Over All	Clearance at Lowest Point of Chassis	Over All
Eagle 104-2-3.....	49 1/2	3	1 1/2	2	46	2 1/2	1 1/2	2	Opt	222 1/2	32	32
Eagle 105-2-3 Ton.....	58	2 1/2	1 1/2	2	44	2 1/2	1 1/2	2	Opt	222 1/2	32	32
Fageol 235-2.....	12 1/2	3 1/2	3 1/2	2	12 1/2	3 1/2	3 1/2	2	120	243 1/2	34	34
Fageol 340-3.....	13 1/2	3 1/2	3 1/2	2	13 1/2	3 1/2	3 1/2	2	159 1/2	268 1/2	37 1/2	37 1/2
Fageol 445-4.....	15 1/2	3 1/2	3 1/2	2	15 1/2	3 1/2	3 1/2	2	102	268 1/2	37 1/2	37 1/2
Fageol 645-6.....	18 1/2	4	4	2	18 1/2	4	4	2	110	268 1/2	37 1/2	37 1/2
Federal R-3-1.....	.....	.....	.....	4	.....	.....	.....	4	118	.....	.....	.....
Federal S-23-1 1/2.....	.....	.....	.....	4	.....	.....	.....	4	134	.....	.....	.....
Federal U-3-2 1/2.....	.....	.....	.....	4	.....	.....	.....	4	154	.....	.....	.....
Federal X-3-4.....	.....	.....	.....	4	.....	.....	.....	4	166	.....	.....	.....
Federal Light Duty.....	.....	.....	.....	4	.....	.....	.....	4	60	.....	.....	.....
Federal Heavy Duty.....	.....	.....	.....	4	.....	.....	.....	4	60	.....	.....	.....
Fisher Fast Freight.....	16	2 1/2	2 1/2	2	8	2 1/2	2 1/2	2	70	211	32	32
Flint Road King.....	42 1/2	2 1/2	2 1/2	1	40 1/2	2 1/2	2 1/2	1	130 1/2	212 1/2	30	30
Front T-1.....	23 1/2	1 1/2	1 1/2	1	12	1 1/2	1 1/2	1	60	125	23	23
Front Drive FT-1 1/2.....	13	3 1/2	3 1/2	1	15	4	4	1	132	204	34	34
F. W. D. B-3.....	27	3 1/2	3 1/2	1	43	2 1/2	2 1/2	1	148	200	36	36
Garford 15-1.....	11	2 1/2	2 1/2	4	11	2 1/2	2 1/2	4	96	187	34	34
Garford 30-1 1/2.....	11 1/2	3 1/2	3 1/2	4	11 1/2	3 1/2	3 1/2	4	120	220	34	34
Garford 50-2 1/2.....	13 1/2	3 1/2	3 1/2	4	13 1/2	3 1/2	3 1/2	4	144	240	36	36
Garford 80-4.....	15 1/2	3 1/2	3 1/2	4	15 1/2	3 1/2	3 1/2	4	150	251	36	36
Garford 68D-5.....	17 1/2	4	4	4	17 1/2	4	4	4	150	251	36	36
Garford 151-A-5.....	10 1/2	4	4	2	21 1/2	4	4	2	150	251	36	36
Gary WLD-1.....	11 1/2	3	3	4	11 1/2	3	3	4	97 1/2	.....	.....	.....
Gary G15-1 1/2.....	12	3 1/2	3 1/2	4	12	3 1/2	3 1/2	4	120	214	34	34
Gary E25-2 1/2.....	13 1/2	3 1/2	3 1/2	4	13 1/2	3 1/2	3 1/2	4	120	214	34	34
Gary Y35-3 1/2.....	15 1/2	3 1/2	3 1/2	4	15 1/2	3 1/2	3 1/2	4	148	227	36 1/2	36 1/2
Gary B60-5.....	18 1/2	4	4	4	18 1/2	4	4	4	186	275	38 1/2	38 1/2
G.M.C. K-41.....	13	3 1/2	3 1/2	4	13	3 1/2	3 1/2	4	Opt	Opt	Opt	Opt
G.M.C. K-71.....	15 1/2	3 1/2	3 1/2	4	15 1/2	3 1/2	3 1/2	4	Opt	Opt	Opt	Opt
G.M.C. K-101.....	17 1/2	4	4	4	17 1/2	4	4	4	Opt	Opt	Opt	Opt
G.M.C. K-17.....	14 1/2	2 1/2	2 1/2	3	46 1/2	2 1/2	2 1/2	3	101	199 1/2	34 1/2	34 1/2
G.M.C. K-32.....	14 1/2	2 1/2	2 1/2	3	46 1/2	2 1/2	2 1/2	3	101	199 1/2	34 1/2	34 1/2
Gottfredson 50-B-1.....	42 1/2	3 1/2	3 1/2	1	11	2	2	1	86	181 1/2	32 1/2	32 1/2
Gottfredson 50-1 1/2.....	11 1/2	3 1/2	3 1/2	4	11 1/2	3 1/2	3 1/2	4	120	214	34	34
Gottfredson 60-2.....	11 1/2	3 1/2	3 1/2	4	11 1/2	3 1/2	3 1/2	4	120	214	34	34
Gottfredson 80-4.....	11 1/2	3 1/2	3 1/2	4	11 1/2	3 1/2	3 1/2	4	120	214	34	34
Gottfredson 100-5.....	12 1/2	7	7	2	18 1/2	4	4	2	156	256 1/2	38	38
Graham Bros. BB-1.....	41 1/2	2 1/2	2 1/2	2	41 1/2	2 1/2	2 1/2	2	86 1/2	192 1/2	34	34
Graham Bros. CB&MB-1 1/2.....	41 1/2	2 1/2	2 1/2	2	41 1/2	2 1/2	2 1/2	2	86 1/2	192 1/2	34	34
Graham Bros. LB&FB-1 1/2.....	41 1/2	2 1/2	2 1/2	2	41 1/2	2 1/2	2 1/2	2	86 1/2	192 1/2	34	34
Graham-Bernstein 40-4.....	48 1/2	2 1/2	2 1/2	2	48 1/2	2 1/2	2 1/2	2	132 1/2	238 1/2	34	34
Graham-Bernstein 10 Spd-1.....	48 1/2	2 1/2	2 1/2	2	48 1/2	2 1/2	2 1/2	2	97	180	30 1/2	30 1/2
Graham-Bernstein 15-1 1/2-2.....	48 1/2	2 1/2	2 1/2	2	48 1/2	2 1/2	2 1/2	2	74	205 1/2	32	32
Graham-Bernstein 65-1 1/2-2.....	19 1/2	1 1/2	1 1/2	2	19 1/2	1 1/2	1 1/2	2	120	205 1/2	32	32
Graham-Bernstein 125-2 1/2.....	8	5 1/2	5 1/2	2	45	2 1/2	2 1/2	2	126 1/2	214	32	32
Graham-Bernstein 30-3.....	22 1/2	2 1/2	2 1/2	4	22 1/2	2 1/2	2 1/2	4	129 1/2	226 1/2	36	36
Gramm-Bernstein 75P-3 1/2.....	22 1/2	2 1/2	2 1/2	4	22 1/2	2 1/2	2 1/2	4	129 1/2	226 1/2	36	36
Gramm-Bernstein 40-4.....	28 1/2	2 1/2	2 1/2	4	28 1/2	2 1/2	2 1/2	4	144	240 1/2	36	36
Gramm-Bernstein 50-5-6.....	32 1/2	2 1/2	2 1/2	4	32 1/2	2 1/2	2 1/2	4	132	240 1/2	36	36
Grass Premier 40A.....	22 1/2	1 1/2	1 1/2	4	48	2 1/2	2 1/2	4	98	192	31	31
Grass Premier 60A 1 1/2.....	48 1/2	2	2	4	48 1/2	2	2	4	108	204	31	31
Grass Premier 70A 2 1/2.....	15 1/2	3 1/2	3 1/2	4	15 1/2	3 1/2	3 1/2	4	83	192	35	35
Grass Premier 90A 3 1/2.....	15 1/2	3 1/2	3 1/2	4	15 1/2	3 1/2	3 1/2	4	95	192	35	35
Harvey WOA-2.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-2 1/2.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-3 1/2.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-4.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-5.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-6.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-7.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-8.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-9.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32
Harvey WOB-10.....	45	2 1/2	2 1/2	2	45	2 1/2	2 1/2	2	139	242 1/2	32	32

Replacement Table—Continued

Replacement Table—Continued

NAME, MODEL AND TONNAGE	BRAKE LINING						FRAME					
	Service			Emergency			Length			Width		
	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Mack AC-3 1/2, 5.0 1/2, 7 1/2	16 1/2	8	1 1/4	4	20 1/2	3 1/2	1 1/4	4	Opt	.....	37 1/2	9 1/2
Mack AC-Trac-7, 10, 13, 15	16 1/2	8	1 1/4	4	20 1/2	3 1/2	1 1/4	4	Opt	.....	37 1/2	9 1/2
Master 22-1 1/2	12	3 1/4	1 1/4	2	12	3 1/4	1 1/4	2	Ont	.....	34 1/2	9 1/4
Master 31-2 1/2	13 1/2	3 3/4	1 1/4	2	13 1/2	3 3/4	1 1/4	2	Ont	.....	38 1/2	9 1/4
Master 41-3 1/2	16 1/2	4 1/4	1 1/4	2	16 1/2	4 1/4	1 1/4	2	Ont	.....	42 1/2	9 1/4
Master 61-5 1/2	18 1/2	4 1/2	1 1/4	2	18 1/2	4 1/2	1 1/4	2	Ont	.....	46 1/2	9 1/4
Menominee Hurryton-1	48 1/2	13 1/2	2 1/2	2	48 1/2	13 1/2	2 1/2	2	Opt	.....	107 1/2	10 1/4
Menominee D-2 1/2	47 1/2	13 1/2	2 1/2	2	47 1/2	13 1/2	2 1/2	2	Opt	.....	107 1/2	10 1/4
Menominee HT-1 1/2	47 1/2	13 1/2	2 1/2	2	47 1/2	13 1/2	2 1/2	2	Opt	.....	107 1/2	10 1/4
Moreland RR-1	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland BX-1 1/2	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland EX-2	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland AX-3	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland RX-5	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland RC-Bus	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland EC-Bus	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Moreland AC-Bus	49	12	2 1/4	2	46	12	2 1/4	2	Opt	.....	108 1/2	10 1/4
Nash 2018-1-1 1/2	49 1/2	2	2 1/4	2	20 1/2	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Nash 3018-2-2 1/2	50 1/2	3	2 1/4	2	20 1/2	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Nash 4017-2-2 1/2	49 1/2	2 1/2	2 1/4	2	20 1/2	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
National M	12	3 1/2	1 1/4	4	12	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
National T	13 1/2	3 1/2	1 1/4	4	13 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
National NB-3 1/2	16	3 1/2	1 1/4	4	16	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Noble A-76-1 1/2	47	2 1/2	2 1/4	2	45	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Noble A-21-1 1/2	47	2 1/2	2 1/4	2	45	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Noble B-31-2	43	2 1/2	2 1/4	2	43	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Noble D-52-3	21	2 1/2	2 1/4	2	21	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Noble E-7-3	57	2 1/2	2 1/4	2	57	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Northway B-2-2	50 1/2	2 1/2	2 1/4	2	50 1/2	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Northway B-3-3 1/2	54	2 1/2	2 1/4	2	54	2 1/2	2 1/4	2	Opt	.....	104 1/2	11
Ogden A-2-1	11	2 1/2	1 1/4	4	11	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Ogden D-1 1/2	10 1/2	2 1/2	1 1/4	4	10 1/2	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Ogden E-2 1/2	52	2 1/2	1 1/4	4	52	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Ogden F-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Ogden G-5	11	6	1 1/4	4	25	6	1 1/4	4	Opt	.....	104 1/2	11
Oshkosh AW-2	23 1/2	3 1/2	1 1/4	1	43 1/2	3 1/2	1 1/4	1	Opt	.....	104 1/2	11
Oshkosh AAW-2	23 1/2	3 1/2	1 1/4	1	43 1/2	3 1/2	1 1/4	1	Opt	.....	104 1/2	11
Oshkosh BO-2 1/2	23 1/2	3 1/2	1 1/4	1	43 1/2	3 1/2	1 1/4	1	Opt	.....	104 1/2	11
Oshkosh BBO2 1/2	23 1/2	3 1/2	1 1/4	1	43 1/2	3 1/2	1 1/4	1	Opt	.....	104 1/2	11
Overland 7 1/2	40 1/2	1 1/2	1 1/4	1	40 1/2	1 1/2	1 1/4	1	Opt	.....	104 1/2	11
Patriot 7R-1	40 1/2	1 1/2	1 1/4	1	40 1/2	1 1/2	1 1/4	1	Opt	.....	104 1/2	11
Patriot 9-L-2	40 1/2	1 1/2	1 1/4	1	40 1/2	1 1/2	1 1/4	1	Opt	.....	104 1/2	11
Patriot 11W-3	58	2 1/2	1 1/4	1	43	2 1/2	1 1/4	1	Opt	.....	104 1/2	11
Penn 1	40	1 1/2	1 1/4	1	40	1 1/2	1 1/4	1	Opt	.....	104 1/2	11
Penn 2	50 1/2	3	1 1/4	1	46 1/2	3	1 1/4	1	Opt	.....	104 1/2	11
Pierce Arrow XA-2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow XR-3	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow WC-4	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow WD-5	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow RD-6	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow RB-7 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow XB-7 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow RD-TT	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Pierce Arrow RF-TT	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R31-1 1/2	11	2 1/2	1 1/4	4	11	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R29-1 1/2	11	2 1/2	1 1/4	4	11	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R36-1 1/2	11 1/2	2 1/2	1 1/4	4	11 1/2	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R28-2 1/2	20	3 1/2	1 1/4	4	20	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R20-2 1/2	13	2 1/2	1 1/4	4	13	2 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2	3 1/2	1 1/4	4	Opt	.....	104 1/2	11
Rainier R25-3 1/2	15 1/2	3 1/2	1 1/4	4	15 1/2</							

Replacement Table—Continued

NAME, MODEL AND TONNAGE	BRAKE LINING						FRAME					
	Service			Emergency			Length			Width		
	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces
Super Truck 500...	51 1/2	2 1/2	3/4	2	51 1/2	2 1/2	3/4	2	51 1/2	2 1/2	3/4	2
Super Truck 700...	55 1/2	3	3/4	2	55 1/2	3	3/4	2	55 1/2	3	3/4	2
Super Truck 1000...	68	3 1/2	3/4	2	68	3 1/2	3/4	2	68	3 1/2	3/4	2
Traffic C-4000...	43 1/2	2 1/2	3/4	2	43 1/2	2 1/2	3/4	2	43 1/2	2 1/2	3/4	2
Traffic 6000...	52	3	3/4	2	52	3	3/4	2	52	3	3/4	2
Traffic Speedboy...	43 1/2	2 1/2	3/4	2	43 1/2	2 1/2	3/4	2	43 1/2	2 1/2	3/4	2
Traylor B...	50	2	3/4	2	50	2	3/4	2	50	2	3/4	2
Traylor C...	50 1/2	2 1/2	3/4	2	50 1/2	2 1/2	3/4	2	50 1/2	2 1/2	3/4	2
Traylor D...	56 1/2	2 1/2	3/4	2	56 1/2	2 1/2	3/4	2	56 1/2	2 1/2	3/4	2
Traylor F...	59	2 1/2	3/4	2	59	2 1/2	3/4	2	59	2 1/2	3/4	2
Union FW-2 1/2...	27	4 1/2	3/4	1	27	4 1/2	3/4	1	27	4 1/2	3/4	1
Union H-4...	27 1/2	3 1/2	3/4	1	27 1/2	3 1/2	3/4	1	27 1/2	3 1/2	3/4	1
Union HW-4...	27	3 1/2	3/4	1	27	3 1/2	3/4	1	27	3 1/2	3/4	1
United 25...	48	2 1/2	3/4	2	48	2 1/2	3/4	2	48	2 1/2	3/4	2
United 30...	47 1/2	2 1/2	3/4	2	47 1/2	2 1/2	3/4	2	47 1/2	2 1/2	3/4	2
United 35...	47 1/2	2 1/2	3/4	2	47 1/2	2 1/2	3/4	2	47 1/2	2 1/2	3/4	2
United 40...	47 1/2	2 1/2	3/4	2	47 1/2	2 1/2	3/4	2	47 1/2	2 1/2	3/4	2
United 50...	57 1/2	2 1/2	3/4	2	57 1/2	2 1/2	3/4	2	57 1/2	2 1/2	3/4	2
United 80...	60	3	3/4	2	60	3	3/4	2	60	3	3/4	2
U.S.U.-1 1/2...	50 1/2	2 1/2	3/4	2	50 1/2	2 1/2	3/4	2	50 1/2	2 1/2	3/4	2
U.S.N.-1 1/2...	50 1/2	2 1/2	3/4	2	50 1/2	2 1/2	3/4	2	50 1/2	2 1/2	3/4	2
U.S.N.W.-2 1/2...	21	2 1/2	3/4	2	21	2 1/2	3/4	2	21	2 1/2	3/4	2
U.S.R.-2 1/2...	21	2 1/2	3/4	2	21	2 1/2	3/4	2	21	2 1/2	3/4	2
U.S.S.-3 1/2...	21	2 1/2	3/4	2	21	2 1/2	3/4	2	21	2 1/2	3/4	2
U.S.T.-5 1/2...	62	3	3/4	2	62	3	3/4	2	62	3	3/4	2
U.S.S. Spec. 4-5...	21	2 1/2	3/4	2	21	2 1/2	3/4	2	21	2 1/2	3/4	2
Victor 25-1 1/2...	22	2 1/2	3/4	2	22	2 1/2	3/4	2	22	2 1/2	3/4	2
Victor 40-1 1/2...	48	2 1/2	3/4	2	48	2 1/2	3/4	2	48	2 1/2	3/4	2
Victor 50-2...	49	2 1/2	3/4	2	49	2 1/2	3/4	2	49	2 1/2	3/4	2
Victor 60-2 1/2...	59	2 1/2	3/4	2	59	2 1/2	3/4	2	59	2 1/2	3/4	2
Victor 70-2 1/2...	59	2 1/2	3/4	2	59	2 1/2	3/4	2	59	2 1/2	3/4	2
Victor 80-3 1/2...	59	2 1/2	3/4	2	59	2 1/2	3/4	2	59	2 1/2	3/4	2
Victor 85-5...	71	2 1/2	3/4	2	71	2 1/2	3/4	2	71	2 1/2	3/4	2
Victor 90-6...	71	2 1/2	3/4	2	71	2 1/2	3/4	2	71	2 1/2	3/4	2

Detroit Buys 64 More Coaches

Doubles Mileage of Graham Brothers Bus Lines; Service Opens Up New Residential Districts

The Street Railway Commission of the City of Detroit and Mayor John W. Smith have approved the purchase of 64 more Graham Brothers 21-passenger street car type motor coaches, making a total of 148 bought within a year. This action of the Commission, taken in accordance with the recommendation of H. U. Wallace, General Manager of the Detroit Street Railways, was later approved by the City Council.

General Manager Wallace, in recommending the purchase, stated that the 84 coaches already in service have been operated over 2,000,000 miles and have proved entirely satisfactory.

The Department of Street Railways started motor coach operations on January 1, 1925, and have gradually extended their coach lines until they now operate over routes totaling 52 miles. The new equipment will, when placed in service, increase the mileage of their coach routes by 43 miles, giving them a total of 95 miles. Trolley cars are operating over 395 miles of track, and the 95 miles of new motor coach routes will increase the mileage of the entire transportation system by about 25 per cent.

Court Orders Sale of Kelly-Springfield Truck Co.

Order of sale was granted by Judge F. M. Krapp of Springfield, O., in the case of Bankers Trust Co. of New York against the Kelly-Springfield Truck Co. in Common Pleas Court. Receiver P. A. Lewis was directed to offer the property for sale Nov. 23, at 2 p. m., at the factory. This step is incident to the sale and reorganization of the company upon a sound basis by Eastern men. It is stated that the company has three prospective buyers. The claims total \$1,500,000; bonds \$590,000; interest due, preferred claims and unsecured claims, \$400,000, with interest of \$110,000. The plant and equipment are appraised at \$1,800,000. The company makes heavy-duty motor trucks and has good prospects, it is stated.

British Bus and Truck Show

Interesting changes in the designs of buses and trucks are looked for at the Commercial Motor Transport Exhibition to be held in London from October 29th to November 7th under the auspices of the Society of Motor Manufacturers and Traders. This is the first show of that kind the English manufacturers have held in two years, and it is expected to reveal the advances which have taken place in the commercial vehicle field during that time. A number of truck and bus manufacturers in this country are expressing great interest in the exhibition.

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Electric Commercial Cars

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autocar E 1F.....	10000	3650			2400		A		G-E	G-E	5	R	Own	Row	34x4	34x5	Ross	107	60
Autocar E 2D.....	15000	4300			2800		A		G-E	G-E	5	R	Own	Row	34x5	34x6	Ross	120	60
Autocar E 3H.....	18000	4900			3200		A		G-E	G-E	5	R	Own	Row	34x5	36x8	Ross	131	60
Autocar E 4Y.....	26000	6800			4000		A		G-E	G-E	5	R	Own	Row	34x6	36x8	Ross	138	60
Autocar E 5M.....	30000	7200			4300		A		G-E	G-E	5	R	Own	Row	36x7	36x7	Ross	138	60
C-T H-1.....	5600	2400				14	A	55	G-E	Own	4	Own	F	Shel	36x3	36x3½	W	108	68
C-T F-1.5.....	6600	2800				14	A	60	G-E	Own	4	Own	F	Shel	36x3	36x4	W	94	65
C-T H-1.5.....	6600	2800				14	A	60	G-E	Own	4	Own	F	Shel	36x3	36x4	W	116	71
C-T F-2.....	8000	3100				14	A	50	G-E	Own	4	Own	F	Shel	36x3½	36x5	W	96	66
C-T H-2.....	8000	3100				14	A	50	G-E	Own	4	Own	F	Shel	36x3½	36x5	W	124	70
C-T F-4.....	11950	4200				12	A	50	G-E	Own	4	Own	F	Shel	36x4	36x4½	W	116	68
C-T A-7.....	17700	5800				11	A	45	G-E	Own	4	I	D	Shel	36x6	36x4½	W	122	60
C-T F-7.....	17900	6000				11	A	45	G-E	Own	4	Own	F	Shel	36x5	36x5½	W	136	68
C-T A-10.....	22250	6500				10	A	45	G-E	Own	4	I	D	Shel	36x7	36x5½	W	132	59
C-T F-10.....	22750	7000				10	A	45	G-E	Own	4	Own	F	Shel	36x6	36x6½	W	152	68
Kelland AT.....	1950	1000	1500			15	S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BT.....	2050	1500	2000			15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CT.....	2150	2000	2500			15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	102	60
Kelland AH.....	2500	1000	1500			15	A	45	G-E	G-E	4	C	D	Mer	36x3	36x3	Hin	106	60
Kelland BH.....	2600	1500	2000			15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x3½	Hin	106	60
Kelland CH.....	2700	2000	2500			15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x4	Hin	106	60
Kelland ATS.....	2200	1000	1500			15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BTS.....	2300	1500	2000			15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CTS.....	2400	2000	2500			15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	102	60
Lansden Century.....	1700		1250	1600	15		S	60	G-E	Own	4	R	Flot	SP	32x4½	32x4½	Ross	108	50
Lansden Century.....	1950		2000	1850	15		S	60	G-E	Own	4	R	Flot	SP	33x5	33x5	Ross	112	50
Lansden Marathon.....	2900		2000	1850	14		A	50	G-E	Own	4	C	D	SP	36x3½	36x4	Bay	108	60
Lansden Marathon.....	4400		4000	2250	13		A	50	G-E	Own	4	C	D	SP	36x4	36x3½	Bay	120	60
Lansden Marathon.....	5700		7000	2950	11		A	45	G-E	Own	4	C	D	SP	36x5	36x5½	Bay	133	60
Lansden Marathon.....	7500		10000	3350	10		A	40	G-E	Own	4	C	D	SP	36x6	36x6½	Bay	146	60
O. B-B.....						13			G-E	Own		C	D		36x4	36x3½	Own	107	
O. B-C.....						11			G-E	Own		C	D		36x5	36x4	Own	135	
O. B-D.....						10			G-E	Own		C	D		36x6	36x5	Own	143	
Steinmets 15.....	6800	2200	1000	2250	1800	18	H&S	60	Own	Own	4	R	Own	Lig	32x4½	32x4½	Lav	114	55
Walker 12.....	1900		1000			15	H&S	50	G-E	Own	4	Tim	Det	Math	32x3	32x3½	Ross	104	66
Walker 15.....	2800		1500			14	A	50	West	West	5	Own	Own	Math	34x3	36x3½	Ross	94	66
Walker 22.....	3000		2000			13	A	50	West	West	5	Own	Own	Math	34x3½	36x4	Ross	101	66
Walker 42.....	4200		4000			13	A	50	West	West	5	Own	Own	Math	36x4	36x6	Ross	114	66
Walker P.....	6000		7000			11	A	40	West	West	5	Own	Own	Math	36x5	38x5½	Ross	131	66
Walker N.....	6700		10000			10	A	40	West	West	5	Own	Own	Math	36x6	38x6½	Ross	141	66
Walter HD.....	6800	2300		2200	16		A	60	Diehl	G-E	5	B			32x3½	32x4	Ross	98	60
Walter EN.....	13200	4400		5000	3100	15	A	50	G-E	G-E	5	Own	D		36x4	36x7	Gem	114	60
Walter EL.....	16800	5000		7000	3700	13½	A	50	G-E	G-E	5	Own	D		36x5	36x4	Gem	132	60
Walter ES.....	23600	7200		11000	4500	12	A	50	G-E	G-E	5	Own	D		36x6	40x6	Ross	150	70
Walter ER.....	28400	7500		15000	4800	11	A	50	G-E	G-E	5	Own	D		36x7	40x7	Ross	150	70
Ward A211.....	4650	1800	600	1150		15	S	75	G-E	Own	4	W	Shel	Shel	32x3	32x3½	Own	88	56
Ward B-222.....	6000	2300	1010	1700		13	S	84	G-E	Own	4	W	Shel	Shel	32x3½	32x4	Own	91	62
Ward C-211.....	8000	2670	2170	2880		13	S	65	G-E	Own	4	W	Shel	Shel	32x3½	34x5	Own	96	64
Ward E-211.....	12000	3570	4480	5430		12½	S	56½	G-E	Own	4	W	Shel	Shel	34x4	36x6	Own	108	65
Ward G-211.....	16000	4500	6560	7760		11	S	44	G-E	Own	5	W	Shel	Shel	36x5	36x8	Own	120	68
Ward J-211.....	22500	6630	9500	11200		10	S	39½	G-E	Own	5	W	Shel	Shel	36x6	36x10	Own	136	70
Ward M-211.....	30000	8430	13780	15920		9	S	36	G-E	Own	5	W	Shel	Shel	36x7	36x7½	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

General Tire Convention Proclaimed a Big Success

That the annual get-together of the General Tire & Rubber Company's sales organization was the most enthusiastic and profitable convention ever held was attested by every individual assembled there.

Interpreting the structure of the successful tire salesman Mr. O'Neil, president and general manager said, "Loyalty, is the boon companion of success—loyalty not only to your product and your organization but also to the man you are selling. Spend time with the distributor, check his sales, his credits, his margin of profits, and educate him in the latest thoughts in the tire world," are several of the suggestions of loyalty advanced by Mr. O'Neil.

A. B. Stiller, advertising manager, unfolded a comprehensive and complete line-up of advertising for 1926, the details of which will be taken up at the Dealer Conventions. S. S. Poor laid particular stress on all accounts becoming 100 per cent GENERAL. H. F. Smith

emphasized the fact that an increase in volume for 1926 should and must show a corresponding increase among the individual distributors. C. J. Jahant went into details on tire engineering and the importance of consumers being educated in the care of tires and the elimination of common abuses.

W. F. Fouse, vice-president and head of the Credit Department, put across the idea that each salesman should become an integral part of the business of all his accounts, "Watch their sales, their gross and net profits, operating expenses, etc., with a view of offering helpful suggestions," said Mr. Fouse.

C. N. Uhl, manager transportation sales, had just recently completed a very thorough survey of the bus field and presented a chart covering the survey—pointing out General's position with transportation companies as a whole, and explaining how careful study and the maintenance of the departments both in the factory and sales divisions specializing in the field, method of distribution, and class of service rendered by distributors, has secured good will.

Reading R. R. Protests Grant of Bus Licenses

An application to the Public Service Commission for a certificate of public convenience to operate a motor bus line from Pottsville to Lykens, Pa., has aroused the Reading Railroad Co. to protest against the granting of it until the company shall have the opportunity to study the inauguration of an extensive motor bus service itself.

The company has asked that no bus line applications in competitive territory be granted for three months, assigning as the reason diminishing revenue from local passenger traffic, due to the increasing competition of individual bus lines and the inability of the railroads to compete with the automobile.

E. D. Osterhout, passenger traffic manager of the road, appeared before the Commission and stated these facts, adding that the Reading is the first railroad in Pennsylvania to take steps to enter the motor bus business. Decision was withheld for the present.

When First-Cost Costs Nothing at All



Attractive electric equipment that brings dignity and prestige to the delivery of bread.

No place does electricity manifest its cleanliness, economy and efficiency more than in delivery by electric truck.

It doesn't make much difference what the first cost of an article is, if you get all your *first cost* money back plus a profit.

The money that most firms are now spending for gas truck or horse delivery on frequent stop city routes would buy Ward Electrics, absorb *all* operating costs and pay off the investment, and then a profit. Thus giving them their Ward Electrics fleet for nothing, *with all first costs wiped out*.

A first cost *that is absorbed* beats a low first cost *that is always a loss*.

The first cost of an Electric seems high beside a flivver or a horse, yet the year by year cost, or cost per unit of delivery is much less—the Electric savings wipe out the first cost and then pile up profits for you.

The amount paid out for a vehicle has no direct relation to profit in a business.

But the percentage of income spent for delivery does have a big part to play in the profits of a business.

With Ward Electrics we can save delivery users from 20% to 35% in delivery costs.

Help firms figure their delivery costs. Assume a saving of even 20 per cent. Then see what this saving would mean in a year turned into the profit account.

It all means that the apparently high cost of an Electric is something that should be welcomed. Many a firm is glad to pay the higher price to get a vehicle that makes such a big saving on delivery.

Whether a company buys trucks or not they'll want delivery figures on a sound basis. We have specialized in delivery costs and we have charts and cost systems that will be helpful to them.

WARD MOTOR VEHICLE CO.

MT. VERNON, N. Y.

Also

Boston
Baltimore

Philadelphia
Chicago

New York
San Francisco

WARD ELECTRICS



EDITORIALS



City vs. Inter-City Types

THERE'S quite a difference between the kind of service a bus must render when it travels along well paved city streets and boulevards and when it goes out through country districts where the road may be of the unimproved type. Many buses which are entirely suitable for city work are not suitable for the other service, although at first thought there may not seem to be any difference in the two classes of service. The inter-city bus first of all must stand greater speeds, must be more substantially built in body construction, must have less unsprung weight and be more comfortable because of the average greater length of ride taken by the passenger. All of which leads to the point that the same chassis which is designed for urban service may not work out satisfactorily in inter-city work.

In some cases manufacturers are making slight changes, such as putting in extra spring leaves to take care of the crown of the road, or putting in extra bracing, to keep the frame from warping. These modifications may be alright for a time, but in the long run they will not prove satisfactory. In other words, more and more the bus owner will demand that which is specially designed for a particular kind of service. Therefore, the bus manufacturer and dealer should study the requirements of the owner very carefully. The time will come when the bus owner will pay more attention to comparative costs than he does now and consequently he will demand that equipment which is specifically designed for the job. The maintenance cost item will require his careful attention to detail in design.

Schedule Information Needed

ONE thing which is of paramount importance in bus operation is to have a schedule and then live up to that schedule. But the best little schedule in the world will not secure business unless the public knows about it. And that public consists not alone of the home town folks who perhaps set

their clocks with the passing of the bus at given points, but the traveling salesman and the tourist.

There is quite a scarcity of schedule information in the hotels and except where the hotel serves as a terminal is it possible to get information as to bus operations both local and inter-city. This situation has been corrected in towns where there are union bus terminals but these are comparatively few when the number of terminal cities and towns are considered.

Therefore it is suggested that until such time as a union bus terminal is established that the motor bus owner should do everything possible to secure wide spread distribution of his schedule, preferably in printed form, to all places where the traveling public usually applies for information. This is something in which the dealer could lend a hand by helping the bus owner secure the proper contact and co-operation. It may be the means of securing that owner's business when he is in need for more buses.

Time for Action

MILLIONS of lines of type will be set between now and the coming session of Congress, exhorting the automotive industry to do its utmost in eliminating the war barnacles in the shape of excise taxes which are still being levied on highway transportation.

We doubt if there is any dealer in the business who does not appreciate the unfairness of these taxes. Certainly there is no reason under the blue sky for a continuance of these taxes especially as there are other well known forms of transportation which are wholly exempted.

But as long as the dealer as an individual and every other individual of his organization makes no effort to do his bit then he need not blame the organizations that are shouldering the brunt of this work, if they fail to win the pending battle. It's high time now for action and that action means that each time that you write a letter to your congressman you will have registered another vote for the repeal of these taxes.

News of the Trade

Bus Tire Business on Mileage Basis

Manufacturers Forced to Go Back to Old System. Rubber Prices Down

COMPETITION for bus tire business has caused many rubber manufacturers in the last few months to revert to the old system of selling tires on a mileage basis to the big operators.

Several months ago most manufacturers had agreed not to solicit mileage contracts from commercial accounts of any kind. A few did not keep faith, it is understood, and now the practice is more or less general in the industry, although it is not advertised.

Practically every rubber company executive interviewed declared that the sale of tires on mileage contracts is not good business. Tire manufacturers continue to go after the mileage contracts, however, largely because they are afraid of their competitors. The tire executive committee of the Rubber Association of America, it is understood, is considering action which will lead to definite elimination of the mileage policy.

The White Bus Transportation Co., 35 N. Walnut Street, has been chartered with an authorized capital of \$5000 to operate a bus line for the transportation of persons between Youngstown and Struthers, Ohio. Incorporators are Morris Matles, Yeta, Matles, Max E. Brunswick, Mike Kolmacio, Jaul Kolmacio and Mary Kolmacio.

New York City to Reduce Freight Costs

Nine Universal Inland Freight Stations Planned With No Increase in Cost

PLANS for getting freight in and out of Manhattan by use of automobile trucks to supplement railroads at a saving of \$12,000,000 a year, were made public recently by the Port Authority of New York City. The plan calls for the transference of freight to trucks at the railroad yards in New Jersey for the short run across the Hudson. Most of the freight would be halted on the Jersey side.

SHOWS

Atlantic City, N. J., May 17 to 21, 1926—Manufacturers exhibition and 49th convention of the National Electric Light Ass'n. Young's Million Dollar Pier.

Boston, Mass., March 6 to 13, 1926—24th annual show, Mechanics Bldg. (105,000 sq. ft.), direction Boston Automobile Dealers Ass'n. Inc., and the Boston Commercial Motor Vehicle Ass'n. Inc. Passenger cars, trucks, tractors and accessories. Chester I. Campbell, Mgr., 329 Park Square Bldg.

Buffalo, N. Y., January 16 to 23, 1926—24th annual show, 174th Armory (55,000 sq. ft.), direction Buffalo Automobile Dealers Ass'n. Passenger cars, trucks, tractors and accessories. Carlton C. Proctor, Mgr., Room No. 1, Hotel Statler.

Chicago, Ill., November 9 to 14, 1925—Annual show and convention, Coliseum, direction Automotive Equipment Association. Wm. M. Webster, Commissioner, 18th floor, City Hall Square Bldg.

Chicago, Ill., January 11 to 15, 1926—Annual road show and convention, direction American Road Builders' Association, Coliseum and adjoining buildings.

Chicago, Ill., January 30 to February 6, 1926—Annual show, Coliseum, direction National Automobile Chamber of Commerce.

Cleveland, Ohio, January 23 to 30, 1926—25th annual show, direction the Cleveland Automobile Manufacturers and Dealers Ass'n. Passenger cars, trucks, accessories and motor boats. Herbert Buckman, Mgr., 5005 Euclid Ave.

Detroit, Mich., November 16 to 21, 1925—1st national motor bus and coach show, Grindley Hall. C. E. Stone, Chief Engineer, People's Motor Coach Co.

Detroit, Mich., January 23 to 30, 1926—25th annual show, Convention Hall, (200,000 sq. ft.), direction Detroit Auto Dealers Ass'n. Passenger cars, trucks, tractors, accessories, power boats and cruisers. H. H. Shuart, Mgr., Hotel Addison.

Grand Rapids, Mich., October 27 to 29, 1925—Road show, direction Michigan Ass'n. of Road Commissioners and Engineers. H. J. McKinley, Mgr., 1500 Scribner Ave., N. W.

Indianapolis, Ind., February 15 to 20, 1926—15th annual show, Auto Show Bldg. (70,000 sq. ft.), direction of Indianapolis Auto Trade Ass'n. Passenger cars, trucks and accessories. John Orman, Mgr., 338 N. Delaware St.

Kansas City, Mo., February 12 to 19, 1926—20th annual show, American Royal Bldg. (250,000 sq. ft.), direction of Kansas City Motor Car Dealers Ass'n. Passenger cars, trucks, tractors, accessories, aeroplanes and radio. Geo. A. Bond, Mgr., Firestone Bldg.

Milwaukee, Wis., January 9 to 17, 1926—18th annual show, Auditorium, direction of Milwaukee Automotive Dealers Ass'n. Bart J. Ruddle, Mgr., Room 319, 105 Wells St.

Coming Events

Minneapolis, Minn., February 6 to 13, 1926—19th annual Twin City Show, Overland Bldg. (400,000 sq. ft.), direction Minneapolis Automobile Trade Ass'n. Passenger cars, trucks, tractors, accessories, camping equipment and sportsmen's goods. H. E. Wilcox, Mgr., 1030 Marshall St., N. E. New York City, January 9 to 15, 1926—Annual national show, Grand Central Palace, direction National Automobile Chamber of Commerce.

St. Louis, Mo., February 20 to 27, 1926—19th annual show, City Market Bldg. (100,000 sq. ft.), direction St. Louis Auto Dealers Ass'n. Passenger cars, trucks, accessories and boats. Robert E. Lee, Mgr., 3124 Locust St.

Santa Monica, Cal., May 21 to 25, 1926—Annual United States good roads show, direction United States Good Roads Ass'n. Inc., and the Bankhead National Highway Ass'n. J. A. Rountree, Dir. Gen'l., Maudmont, 3200 Cliff Road, Birmingham, Ala.

San Francisco, Cal., November 9 to 14, 1925—All-Western Road Show, in tents on 18 acre site on the Mariana.

San Francisco, Cal., January 30 to February 6, 1926—10th annual show, Exposition Auditorium (95,000 sq. ft.), direction the motor car dealers of San Francisco. Passenger cars, trucks, accessories and motor boats. G. A. Wahlgreen, Mgr., 215-16 Humboldt Bank Bldg.

Scranton, Penna., January 27 to February 6, 1926—18th annual show, Armory (50,000 sq. ft.), direction Scranton Motor Trades Ass'n. Passenger cars, trucks, tractors and accessories. Hugh B. Andrew, Mgr., Board of Trade Bldg.

Syracuse, N. Y., February 8 to 13, 1926—18th annual show, direction Syracuse Automobile Dealers Ass'n. C. H. Hayes, Mgr., Hotel Syracuse.

Washington, D. C., January 30 to February 6, 1926—Annual show, Washington Auditorium, direction of Washington Automotive Trade Ass'n., Rudolph Jose, Chairman.

CONVENTIONS

American Bottlers of Carbonated Beverages—Annual convention and exhibit, American Royal Bldg., Kansas City, Mo., October 19 to 23. Show headquarters, 231-237 Woodward Ave., Detroit, Mich. Secretary's office, 726-729 Bond Bldg., Washington. D. C. Joseph R. Flynn.

American Road Builders' Association—Annual convention and Road Show, January 11 to 15, 1926, Coliseum and adjoining buildings, Chicago.

American Welding Society—Fall meeting, October 21 to 23, Boston, Mass. M. M. Kelly, sec'y.

Asphalt Association—4th annual asphalt paving conference, October 21 to 23, Detroit, Mich. Headquarters, 441 Lexington Ave., New York City.

Associated Advertising Clubs of the World—Convention, June 20 to 25, 1926, Philadelphia, Pa. Carl Hunt, Mgr.

Associated Manufacturers of Fabric Auto Equipment—Meeting, November, 1925, Chicago. Edwin B. Nathan, Sec., 2151 Prospect Ave., New York City.

Automotive Equipment Association—Convention and show, November 9 to 14, 1925, Coliseum, Chicago, Ill. Wm. M. Webster, Commissioner.

Carolinas Automotive Trade Association—Service convention, October 20 and 21, 1925, Greensboro, N. C.

Iowa Automotive Merchants Association, Inc.—7th annual convention, November 12 and 13, 1925, in the Fort Des Moines Hotel, Des Moines, Iowa.

Michigan Automotive Trade Association—6th annual meeting, January 27, 1926, Book-Cadillac Hotel, Detroit. W. D. Edensburn, Mgr., Hotel Addison.

National Automobile Chamber of Commerce—Second World Motor Trade Congress, January 11 to 13, 1926, New York City.

National Automobile Chamber of Commerce—3rd annual joint service meeting with the Society of Automotive Engineers, November 9 and 10, 1925, Hotel LaSalle, Chicago.

National Automobile Dealers Association—Annual meeting, January 11, 1926, Commodore Hotel, New York City. C. A. Vane, Mgr., 320 N. Grand Ave., St. Louis, Mo.

National Automobile Dealers Association—Annual convention, February 1 to 3, 1926, Hotel LaSalle, Chicago, Ill. C. A. Vane, Mgr., 320 N. Grand Ave., St. Louis, Mo.

National Electric Light Association—19th convention and manufacturers exhibition, May 17 to 21, 1926, Young's Million Dollar Pier, Atlantic City, N. J.

National Hardware Association of the United States—Annual convention, October 13 to 23, 1925, The Ambassador, Atlantic City, N. J. T. James Fernley, Sec.

National Research Council—5th annual meeting of the Highway Research Board, December 3 and 4, 1925, Washington, D. C.

National Standard Parts Association—Convention and show, November 16-18, 1925, Hotel Sherman, Chicago.

National Tire Dealers Association—Annual convention, November 17 to 19, 1925, Hotel Chase, St. Louis, Mo. Chairman of arrangements, S. L. Chorlins, 3908 Washington Blvd., St. Louis.

Society of Automotive Engineers—Service Engineering meeting, November 9 and 10, 1925, La Salle Hotel, Chicago.

Society of Automotive Engineers—Automotive transportation meeting, November 13 and 14, 1925, Benjamin Franklin Hotel, Philadelphia, Pa.

Society of Automotive Engineers—Annual banquet, January 14, 1926, Hotel Astor, New York City.

Society of Automotive Engineers—Annual meeting, January 20 to 22, 1926, General Motors Bldg., Detroit.



Rolled Steel—Service!

Truck manufacturers have increased the durability, capacity and speed of motor trucks in order to meet the requirements of incessant service.

Bethlehem Rolled Steel Truck Wheels are built to set the pace for service on modern motor trucks—and they do their job well! Specify Bethlehem Truck Wheels on your next truck order.

BETHLEHEM STEEL COMPANY, General Offices: BETHLEHEM, PA.

District Offices in the Following Cities:

New York
Cincinnati

Boston

Philadelphia
Cleveland

Baltimore
Detroit

Washington
Chicago

Atlanta
St. Louis

Buffalo
San Francisco

Pittsburgh

BETHLEHEM

Exclusive National Bus Show Planned

To be Held at Detroit in Grindley Hall, November 16-21

A MOVEMENT which is intended to make Detroit the motor capital of the country has been inaugurated in the formation of plans for the First National Motor Bus and Coach Show on November 16-21 at Detroit. Approximately twenty-five bus manufacturers, between eighty and ninety parts and accessories' manufacturers, and twelve bus body builders are expected to exhibit on this occasion. The show will be held in Grindley Hall, and arrangements are in the hands of a committee head by C. E. Stone.

Buses to be shown include the latest developments in city, suburban, and inter-urban models. Mr. Stone stated that the number of exhibitors will probably be in excess of the number announced so far. He stated further:

"If our program is carried out, we believe that we will establish the show as an annual National event. It will mirror to the Nation the progress that has been made and will serve as an indicator of what may be expected in the future."

Financing of Yellow Merger Completed

Financial operations incident to the recent merger of the Yellow Cab Manufacturing Company and the truck division of the General Motors corporation were announced recently by the directors of the Yellow Truck and Coach Mfg. Company, the new holding corporation. The merger was announced July 7.

A stock dividend of \$15,000,000 in 150,000 shares of 7 per cent preferred will be distributed among holders of the 600,000 shares of class B stock, of record October 2, at the rate of one share of preferred for every four shares of B.

A new issue of 800,000 shares of \$10 par common was authorized for delivery to the General Motors corporation, in payment for the assets transferred to the new company.

The present preferred stock, consisting of 6,750 shares of \$100 par value, owned by the Chicago Yellow Taxi Com-

pany, will be retired at a price not stated.

The July 31 balance sheet of the Yellow Truck and Coach Mfg. Co., giving effect to the financing announced today, with the exception of new preferred issue, shows assets of \$36,662,989.71, with a surplus of more than \$16,000,000.

No Sales Meeting During Good Roads Show

A communication from Morton R. Hunter, President and Secretary, Associated Equipment Distributors, Milwaukee, asks that the following request be made to all members of the Highway Industries Exhibitors' Association:

At a recent meeting of the Executive Committee of the Associated Equipment Distributors, also attended by Messrs. Gardiner, Bement and Dodge, Directors of the Highway Industries Exhibitors' Association, it was decided to ask that the manufacturers hold no sales meetings during the period of the coming National Good Roads Show, January 12, 13, 14 and 15. It is pointed out that the Road Show is designed as a place for the exhibition of new machinery to the buying public.

The opportunity has been taken for meetings of distributors and dealers until the time of these interests, as well as that of the manufacturers, is seriously overcrowded. The Associated Equipment Distributors have agreed to co-operate with the manufacturers, on the understanding that no sales meetings would be held on the Road Show dates named, by changing the Annual Meeting of the Equipment Distributors from January 8 and 9 to January 5 and 6. Manufacturers in the Wisconsin territory are requested to hold their sales meetings on Thursday and Friday preceding the Road Show, and the others are asked to hold theirs in Chicago on Saturday, Sunday and Monday preceding the Show, and that all meetings be limited to not exceed one-half day.

Ground has been broken in Boston for what will be the first garage erected for the sole use of buses and trucks. It will accommodate 400 buses and trucks.

Ten Days' Hearing on Taxes Planned

Bill to Repeal Burden on Industry Regarded as Privileged

TEN days has been fixed as the maximum time for hearings on the tax-reduction bill in the House Ways and Means Committee, which proposes the repeal of the war excise tax on automobiles, accessories and parts. After the hearings the committee will begin preparation of the new legislation for submission to Congress when it convenes in December.

The hearings will begin October 19, and Chairman Green announces that as soon as the House is organized and committee members elected, the bill will be reported and introduced. It has been tentatively decided that representatives of the automotive industry will be among the first called to testify.

"I can see nothing to prevent passage of the tax bill before the holiday adjournment," Chairman Green declared. "Under the rules the bill is privileged. It can be called up at any time, and, while some other bills are privileged, it would, in my judgment, be clearly entitled to preference. I am satisfied there will be no controversy on this point."

Two prominent members of the Ways and Means Committee have given assurance to the American Automobile Association that they will give 100 per cent support to the program for the repeal of the automotive taxes. A statement to this effect was issued jointly by Congressman William A. Oldfield, Democrat, Arkansas, and Congressman James W. Collier, Mississippi.

Battery Makers Gathered in Annual Conference

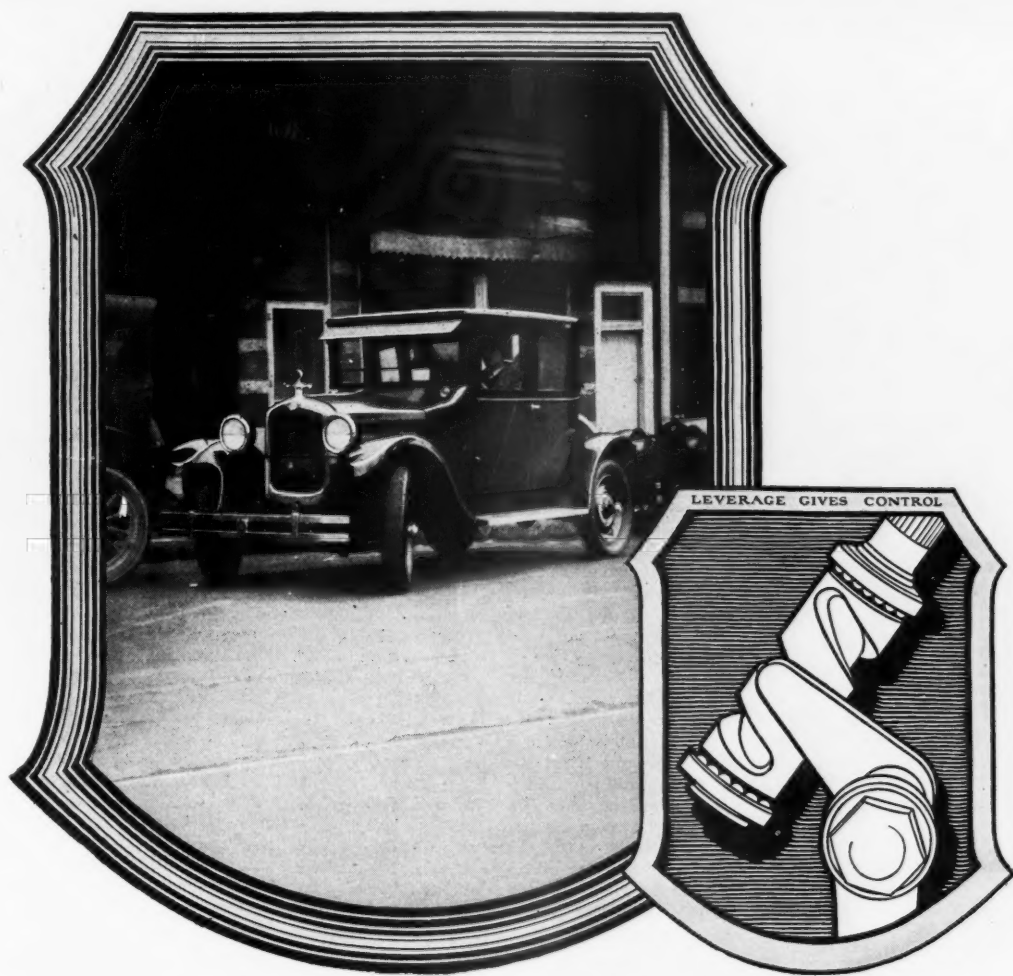
The recent annual convention of the National Battery Manufacturers' Association was attended by about 50 delegates from all parts of the country. President D. H. Kelley presided and was assisted by First Vice-president R. D. Mowry, Second Vice-president P. C. Cole, Secretary C. W. Noll, Treasurer P. M. Marko, Directors J. B. Perlman and C. O. Wamvig and Commissioner O. B. Towne.

Among the questions considered were the lead situation, misbranding, the B battery booklet, battery ratings and co-operation with service stations.

The Southern Ohio Public Service Company of Zanesville, Ohio, has placed an order with The American Motor Truck Company of Newark, Ohio, for ten 25-passenger ACE underslung motor coaches to be used exclusively in city service. These coaches will be the last word in passenger bus construction and will be built and delivered as rapidly as possible.

U. S. Department of Commerce Production Figures

	(Number of Machines)					
	Passenger Cars			Trucks		
	1923	1924	1925	1923	1924	1925
January	228,872	293,824	212,909	20,569	30,741	28,099
February	260,336	343,460	252,785	23,352	32,910	34,334
March	327,059	357,045	332,108	36,737	36,444	45,012
April	351,649	346,405	391,301	39,759	37,948	47,664
May	358,685	286,324	382,714	45,829	35,314	43,225
June	344,026	225,079	364,806	42,568	29,067	37,890
July	303,544	244,544	357,883	31,830	26,391	39,211
August	318,888	255,232	221,756	32,311	28,647	37,643
September	302,352	263,528	.....	29,721	31,960	.....
October	338,485	260,881	.....	31,612	32,475	.....
November	288,813	204,343	.....	29,255	27,905	.....
December	279,864	182,099	.....	28,990	27,542	.....
Total	3,702,569	3,262,764	.....	392,533	377,344	.....



Park It~If You Can!

A DIFFICULT job, this flat-to-the-curb parking! Or *any* parking for that matter and for a woman, sometimes it just can't be done But, with the Ross Cam and Lever Steering Gear it's another story. Even a heavy car with balloon tires yields to the easy and powerful control inherent in the Ross principle of steering design. In every phase of steering Ross supplies new and imperative advantages.

ROSS GEAR AND TOOL COMPANY, 760 Heath Street, Lafayette, Indiana

ROSS
CAM and LEVER  **STEERING GEARS**

EASIER STEERING LESS ROAD SHOCK

Personals

R. E. Anderson has been appointed advertising manager of the Standard Motor Truck Company. Mr. Anderson has a wide experience in publicity and advertising work being chiefly familiar with promotional work as it applies to the motor truck industry.

Claire L. Barnes has been advanced to the capacity of vice-president of the Martin-Parry Corp. Mr. Barnes has been associated with the industry for over 20 years and has been identified with the Martin-Parry Corp. for sometime. His first association was with the Detroit Steel Products Co. Later he was sales manager of Billings & Spencer Co., and subsequently, was John N. Willys' personal representative for a number of years.

H. B. Burr is the new manager of the factory equipment and manager of the Detroit factory branch of the House Engineering Co., maker of Houdaille hydraulic shock absorbers. Mr. Burr was formerly affiliated with Remy and Klaxon divisions of the General Motors Corp.

D. G. Caywood, who has for the past several years been manager of the Boston branch of the Black & Decker Manufacturing Co., has been promoted and will now act as a special representative for the company on various types of special work. **A. D. Geiger**, formerly salesman in the Kansas City branch of the Black & Decker Manufacturing Company, has been appointed manager of the Boston branch.

Albert Champion, president of the AC Spark Plug Co., has sailed for Europe on one of his periodic investigations tours. He will study foreign business conditions and check up AC financial interests.

J. C. Compton, former White Company manager of the northwestern district of Minneapolis, has been appointed district manager of Detroit and **J. L. Sydnor**, former San Francisco manager, is now manager of Los Angeles. The new Detroit office and service station is located at 1465 E. Grand Blvd. The Los Angeles branch is at 3851 Santa Fe Ave., Vernon. **J. H. Barrett**, former Jacksonville salesman, has been promoted to the managership of the Chattanooga branch, succeeding F. S. Wingate, resigned.

J. H. Cooper (Jack) was elected president of the New York Automotive Boosters Club No. 13 at its recent annual meeting. Mr. Cooper represents the Walker Mfg. Co., of Racine, Wis., in eastern territory. Other officers elected were: Ben N. Asch, vice-president; Martin A. Dewey, secretary, and J. C. Adams, treasurer.

W. T. DeLozier. "Bill" has just been appointed branch manager of the Indiana-Pittsburgh Truck Corporation. Mr. DeLozier is well known in the Pittsburgh district, having been sales manager of the Lange Motor Truck Company for the past eleven years.

James Deering, formerly vice-president of the International Harvester Co., died on September 21st on board the Paris on which he was returning from Europe. Mr. Deering was an officer of the Deering Harvester Co. until that business became a part of the International Harvester Co. of which he became vice-president.

A. O. Dunk, president of the Puritan Autoparts Company, Detroit, announces that final arrangements have been made with Geo. W. Golden, president of Golden, Belknap & Swartz Company to handle the complete service of GBS motors. This covers service on over 100,000 trucks and cars.

E. E. Ellis was recently appointed manager of the Oakland branch of the Federal Motor Truck Company.

Allen W. Granger, formerly manager of the Chicago branch of the General Motors Truck Company, has joined the truck department of the Chicago branch of the Reo.

Hal F. Greene, formerly assistant sales manager of the Mason Motor Truck Co., has been appointed sales manager of the Indiana Truck Corp., of Georgia. Mr. Greene formerly handled the south for Mason with headquarters at Memphis, Tenn. His new headquarters will be at Atlanta, Ga.

O. P. Keeney was re-elected President of the National Petroleum Association at the recent annual convention in Atlantic City. Other officers elected were; Sheldon Clark, vice-president; L. P. Litzinger, second vice-president; C. D. Chamberlin, general counsel; Fayette B. Dow, counsel; Willis Crane, traffic attorney; Herbert G. Eaton, recording secretary; G. B. Hunter, treasurer.

R. J. Kelleher has been elected vice-president and general manager of the North East Service, Inc. North East Service, Inc., is the service organization of the North East Electric Company. Mr. Kelleher has been manager of the Paris branch since 1920. Early he was manager of the Kansas City and Detroit offices.

E. F. Kubu, formerly in charge of manufacturers sales of the Firestone Steel Products Co., Akron, Ohio, is now a member of the sales force of the Indestructible Wheel Co. at Lebanon, Indiana, manufacturers of dual type disk wheels in addition to its regular line which covers every automotive wheel requirement.

H. G. LaForge has been appointed division sales manager for the United States Motor Truck Company. Mr. LaForge has been affiliated with the Service and Gotfredson companies on the Pacific coast division for a number of years. He will have charge of the state of Indiana.

Lou W. Longan is now manager in charge of the Link-Belt Chain "Front End" Drive Division of the Link-Belt Company. Mr. Longan has represented the company in Detroit for the past 12 years. His new headquarters will be at 5938 Linsdale Ave., Detroit.

J. Harry Main, former supervisor of purchases for General Motors Corporation, has been appointed Detroit district representative of the General Drop Forge Company of Buffalo, with offices in Detroit.

T. L. Moore has been appointed southern manager of transportation sales for the General Tire & Rubber Co. He was formerly southern district manager for General with offices in Atlanta, being succeeded by H. D. Taylor.

Junius S. Morgan, son of J. P. Morgan, was recently elected a director and member of the finance committee of the General Motors Corp., succeeding the late Edward R. Stettinius.

S. V. Norton, service manager of the General Motors Truck Co., has resigned. He has held this position for the last 5 years. Prior to that date he was 15 years connected with the B. F. Goodrich Company as manager of truck tire sales and other executive capacities. His plans for the future have not been announced.

Thomas T. O'Brien, formerly assistant sales manager of the Olds Motor Works, has become a member of the sales organization of the Reo Motor Co., where he will specialize in the sales of buses and taxicabs. **Fabio Sergarde**, who until recently has been chief engineer of the Olds Motor Works for a number of years, has joined the engineering force of the Reo Motor Car Co.

Percy Owen has resigned as chief of the automotive division, Department of Commerce, to join Dodge Bros., Inc., as director of foreign sales. Mr. Owen is one of the industry's pioneers, having a background of experience extending over 25 years. His

work has been attended by a distinct betterment in the character of reports submitted by foreign representatives of the United States. He understands thoroughly the foreign competition situation and has been actively identified with the good roads idea abroad.

Louis Hooker Palmer, vice-president and general manager of the United Railways & Electric Co., has been made vice-president and general manager of the Fifth Avenue Coach Co. Mr. Palmer's vast experience in transportation and public utility work adapts him ably for the new role he is assuming.

H. H. Pete, according to an announcement received from Willys-Overland, Inc., has been appointed manager of their taxicab and commercial car sales department. Mr. Pete, who was formerly assistant sales manager, is well qualified by experience for his new position. He was at one time assistant sales manager of the Willys-Light Division of the Electric Auto-Lite Company, Toledo.

Seward Prosser has been elected to membership on the board of directors of the General Motors Acceptance Corporation. Mr. Prosser is chairman of the board of directors of the Bankers Trust Company of New York. He has been a director and member of the finance committee of General Motors Corporation for some years, and has followed very closely the progress of the General Motors Acceptance Corporation.

Joseph J. Roberts, formerly sales manager of the Herbrand Company, Fremont, Ohio, has been placed in charge of sales in Michigan and Ohio, for the entire line of Kokomo Automotive Manufacturing Co.

Alfred H. Swayne, chairman of the General Motors Acceptance Corp. and vice-president of the General Motors Corp., feels that the American companies will enjoy a period of great prosperity abroad. Mr. Swayne, who has just returned from the other side, says that production schedules will continue high.

Wood Hydraulic Hoist & Body Co. has appointed within the last six months five new distributors throughout the following states, which brings the total to 14 branches and 24 distributors. J. Lee Vilbig Co., 2517 Eakin St., Dallas, Tex.; James W. Francis Co., 430 Main Ave., San Antonio, Tex.; Kelly Auto Body Co., Richmond Harriet Ct., Cincinnati, Ohio; Lansing Bus Co., 520 N. Grand Ave., Lansing, Mich.; Mr. Paul Gleason, c/o Nelson & Jacques Co., 1765 N. Miami Ave., Miami, Fla.

L. M. Zimmer is the new general sales manager of the Linde Air Products Co. and of the welding gas division of the Prest-O-Lite Co., Inc. He succeeds L. M. Moyer who resigned.

Facts on Ball Bearing Life

A booklet that is an invaluable guide to anyone concerned in the proper care of ball bearings has been recently issued by the Fafnir Bearing Company, New Britain, Conn. The text is presented in a simple and able manner, making its reading easy and interesting. A profusion of diagrammatic and half-tone illustrations also lend themselves to quick understanding of the subject.

It contains things that the repairman should observe when handling ball bearing repairs. One of the chief points brought out in the outline is that carelessness and neglect of lubrication are the chief enemies of ball bearings. This highly important factor is discussed thoroughly. The Fafnir company will be pleased to send free of charge a copy of this booklet to anyone interested.



It is but natural that people prefer to patronize buses which look the finest and ride the easiest.

Comfort!

*W*HILE good appearance is essential to attracting business, comfort is of even greater importance in holding it.

In the Ruggles Model 70 de luxe Club Car, beauty of design, richness of equipment and impressive appearance are but outward evidences of the luxurious ease and lounging comfort reflected in the richly appointed interior.



The Ruggles line of Bus Transportation equipment embraces both Big Six, Light Six and Four cylinder models for every class of passenger service in sizes ranging from 12 to 30 passenger capacity.

Bus operators who quickly recognized the competitive advantages of finer appearance are just as quick to appreciate the business-building value of greater comfort so ideally exemplified in Ruggles de luxe Coach construction.

Ruggles "Six Cylinder" de luxe Passenger Coaches and Buses widen the field of sales opportunity for Ruggles dealers and ideally supplement the Ruggles line of Commercial Trucks for dealers who are ready to take advantage of the money-making possibilities in merchandising transportation. Write for literature and full details of our attractive sales plan.

Ruggles Motor Truck Company
SAGINAW, MICHIGAN, U. S. A.

RUGGLES

For Better Passenger Transportation

Every Truck Sale is a Real Mental Process

(Continued from page 17)

an income. This idea does not place the buyer or the salesman on the defensive, nor does it compel the salesman to pay the penalty for breaking a law of true service, which he certainly does when he sells on price.

The value of a motor truck is not declared in the list price, but is expressed in the vehicle by the knowledge and skill of the manufacturer. When we sell a truck we do not sell so many pounds of material, but the grand total of all the years of experience and the capital responsibility of the firm making the vehicle. We do not sell the truck but the transportation insurance and the protection of this transportation service is guaranteed by the care with which the mechanical details in the truck are worked out. The balance of the engine, closeness of measurement and finish of bearing surface—every detail must be produced with but one object in view; the insurance of rendering the service for which the car is built and sold. And the demonstration of the care with which the insurance is created is evidenced in the income of the truck as it proceeds with its daily work.

What the buyer really wants to be assured of is the safety of his investment and what he may be expected to receive from it. The price of the truck has no importance whatever, except as it may relate to his capital or credit ability to invest. There is only one way and that is to give him a correct and true idea of what transportation income will accrue to his advantage. On this side, the sale must be built and the ability of the salesman to deliver it will determine the measure of his success. Buyers are always slow to acknowledge excellence until they are made to understand what excellence means to them personally.

The third law is: *"The classification of the traffic carried on the displacement area in relation to its weight."* You would be surprised if you knew the amount of ignorance among truck salesmen concerning traffic. It is within reason to state that 95 per cent of them do not know that a truck has a traffic side as well as an operating side. In fact, not long ago, I put the question to a man who applied to me for a position as salesman, and he told me that traffic was a policeman. This is, of course, a gross exception, but highly illustrative, and without traffic, the truck would be worthless. Traffic in transportation signifies the object carried. In passenger operation it implies human beings; in freight transportation it means still loads like general merchandise, or live loads such as cattle, poultry, etc. The moneys derived from transporting these items is the traffic income. The moneys spent to execute the operation of the transportation is the operating disbursement.

It is perfectly clear that we have only so much space in a truck body and that each time we place an object in this

space we take up or displace so much cubic capacity of that space. So to determine how much to charge for this, we must find out how much it weighs compared to the space it occupies. This is called classifying and it obviously means that feathers cost more than lead, because they weigh less per cubic inch. By no other means could we determine an income scientifically and no other method is right. Through the proper study of classification not only the rates on freight transported by common carriers in inter-city hauling but the conveyance of merchandise by local delivery companies and private carriers may be adjusted to the proper incomes. The theoretical incomes of a privately operated truck is the amount which it would cost to hire the service and the profit would of course be the saving over this figure. As you progress in your work you will realize more and more how much it means to your sales.

Understand, transportation selling is not new—it was the first selling program of trucks and has always been the basic marketing feature. However, as the industry developed, more and more mechanical improvements were introduced with claims of operating advantage, but we still sold transportation because the necessity of seeking markets was at that time absent—the problem was production. Later plants were enlarged, production speeded up, always with the subject of mechanical superiority foremost. Through this constant pressure of technical features, the fundamental reason for building motor trucks was lost and highway transportation became nothing more than a title. Now this rut of mechanical selling with its resultant second-hand market, has assumed the dimensions of a grave and some one is being buried in it every hour.

Does the Subscriber Know His Authority?

A subscriber wrote to one of our publications a little while ago.

He started in business from reading the publication and he still regards it as his principal source of practical knowledge and inspiration.

With this particular subscriber the publication he uses is his authority, just as he, the subscriber, is the authority for his customers.

The publication influenced him and in turn he influences his customers.

Influence always flows from those who know to those who do not know—not the other way about.

Reaching the trade through the trade press is reaching the user through his authority.

The Spotlight is on the Bus

(Continued from page 11)

without loss. A lesser number believed that all bus lines should be profitable. Of course everybody wanted their lines to show a profit and every effort is bent toward that goal but the prevailing opinion was that because of the nature of the service for which buses were being used the fact that profitable operation was impossible should be no excuse for abandoning the line.

The question of whether the traction lines should operate motor buses was very emphatically answered by one speaker who crisply stated "that it is not a question of what kind and type of equipment we use, but that it's simply a case of whether we are or are not the transportation medium in the community we serve."

A. T. Warner, of Newark, briefly outlined the experiences of the Public Service Railway Co. of New Jersey with buses in Newark. Two years ago they started with 200 buses, today they operate 1200, covering 85 routes. Last year they ran up a total of 28,000,000 bus miles and carried 160,000,000 passengers per year. And there is no duplication of service.

Also by eliminating single track lines and substituting buses they showed far better results than the rail lines ever did. The speaker stated that they have standardized on 29 passenger equipment, and that the beauty of the bus is that if a certain line does not pay the equipment can easily be transferred to other more profitable points. He believes that its policy to substitute railways for buses only when the bus traffic becomes too heavy.

President Shannahan made the statement at this meeting that the time has arrived when manufacturers of motor buses and traction equipment should be met with open arms, for the reason that many traction properties are running with a lot of obsolete equipment which is simply wasting lots of money. He suggested "that salesmen selling transportation should be given the opportunity to tell what they have to say, then go out and look over the property and put some new ideas into action." He advocated that the traction interests should "stop modernizing verbally but do the thing."

Taken all in all this convention and show will go down in history as one of the most enthusiastic ever held. Optimism reigned supreme on all sides. One of the side lights which is not a part of the convention program is the fact a large number of bankers attended the show. This indicated that the bankers are anxious to study the situation first hand. Undoubtedly, after seeing the progress made by the industries represented and visualizing the co-operative spirit which is now manifest between the automotive industry and the electric traction interests, money for the extension of transportation facilities will be more readily forthcoming.

EATON



THE unusual quality of
Eaton Bus Axles means:

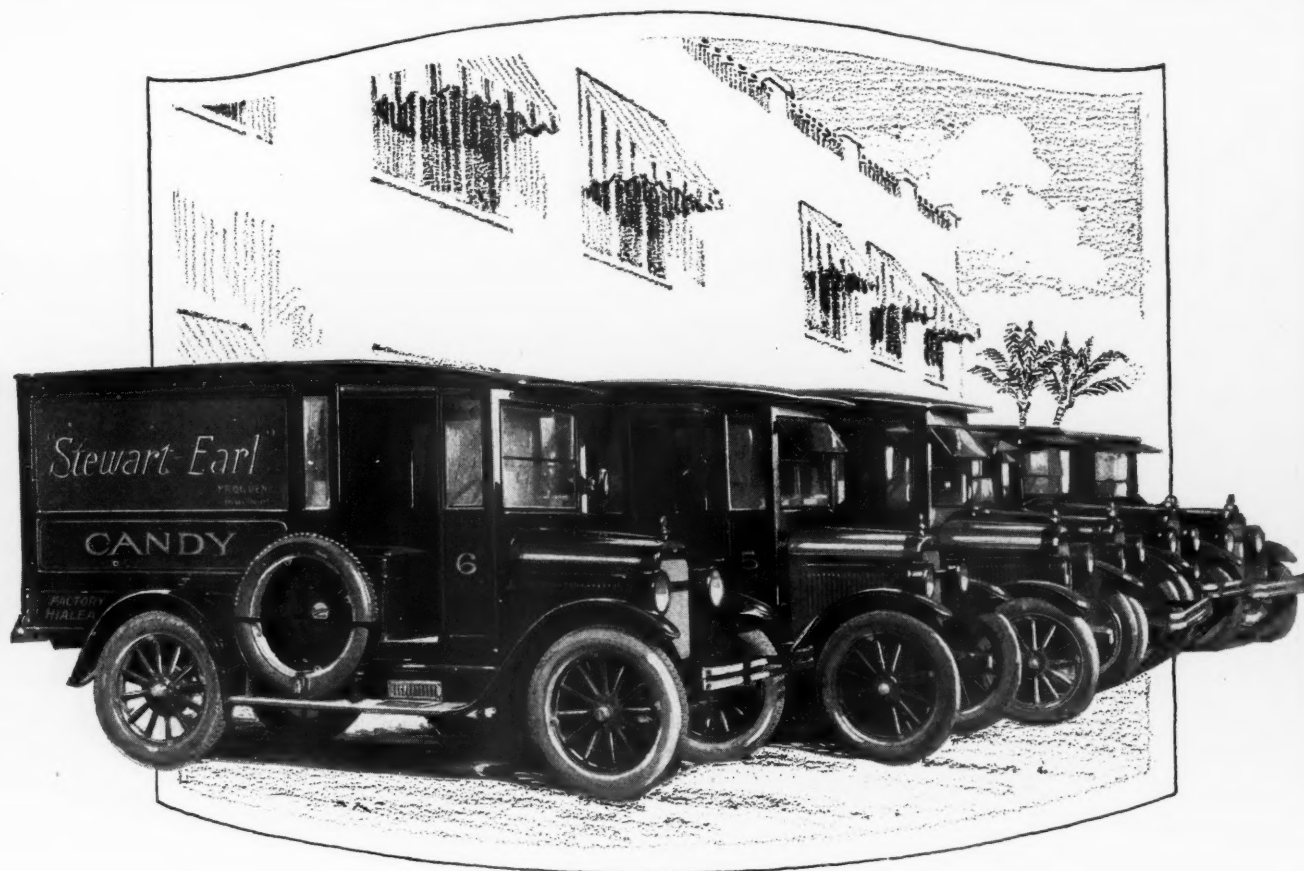
- A little bit added to the price—a great deal subtracted from maintenance costs.
- Safety, Economy, Assured Performance.

Full specifications on Request

The EATON AXLE & SPRING COMPANY
CLEVELAND

EATON AXLES ∴ EATON BUMPERS ∴ PERFECTION SPRINGS ∴

AXLES



Yes, Sir! Spad Spells "Satisfaction!"

This is a picture of the six-unit fleet of Spads owned and operated by Stewart-Earl, Inc., manufacturing confectioners and jobbers, Miami, Florida.

Here's what Mr. P. C. Merrill, Secretary and Treasurer of that company, has to say about them:

"Our fleet of six Spad trucks is giving us excellent service, with a minimum cost both of operation and maintenance . . . What more could be said that so clearly spells SATISFACTION" (the

Write us for the "Cost of Operation Data Book". Tells you how to keep accurate figures on your operating costs. No obligations.

capital letters in the last word are his own, too).

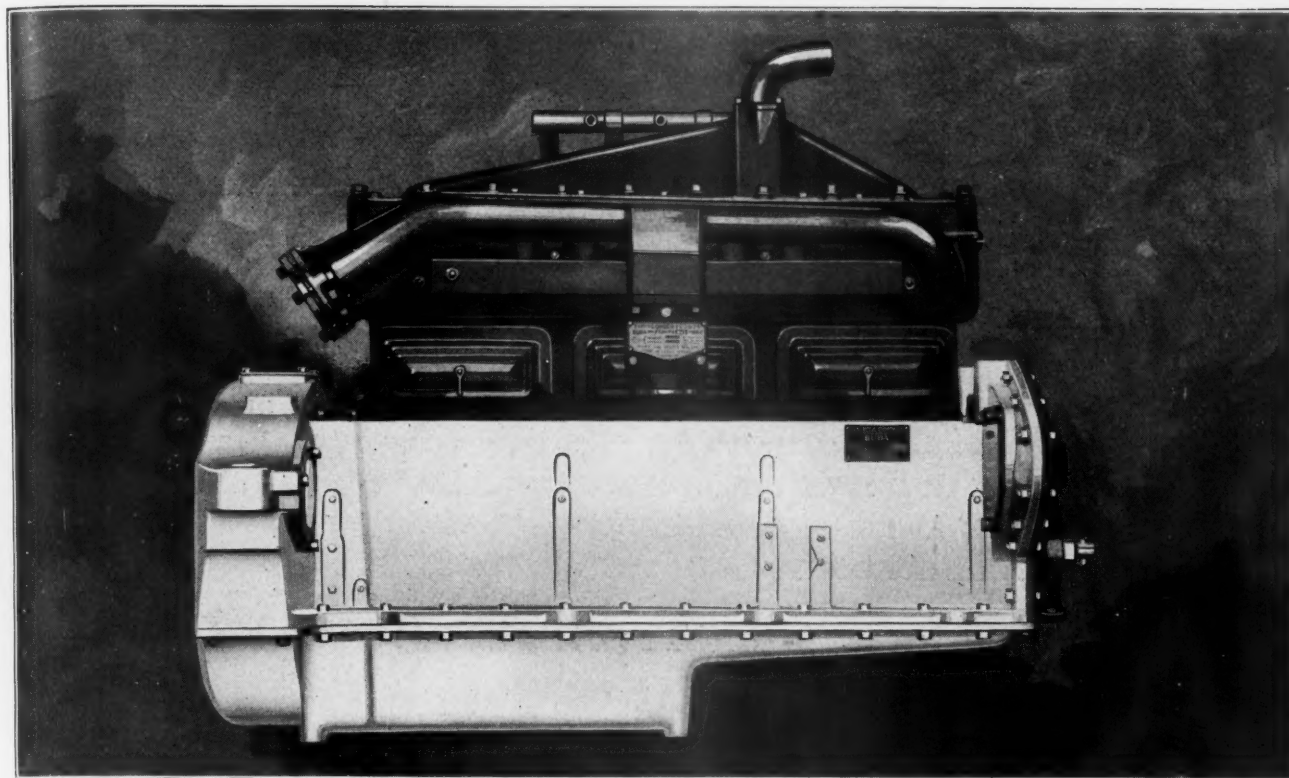
There's nothing particularly unusual about Mr. Merrill's experience with the Spad. But coming as it does from the "watch-dog on the coal pile"—the man who guards the gate-receipts for his institution—a statement like "excellent service, with a minimum cost both of operation and maintenance" has more than a small significance. Get in touch with the nearest Overland dealer for details and prices.

Willys-Overland, Inc., Toledo, Ohio

Willys-Overland Sales Co. Ltd., Toronto, Canada

SPEED POWER AND DURABILITY





Buda 6 Cylinder Model BUS—4" x 5½"
Buda 6 Cylinder Model GL-6—4½" x 6"

Two engines that are making history in bus transportation

The essentials in an engine for motor coach transportation were incorporated in these engines by Buda engineers after a very careful investigation and analysis of the requirements in this field.

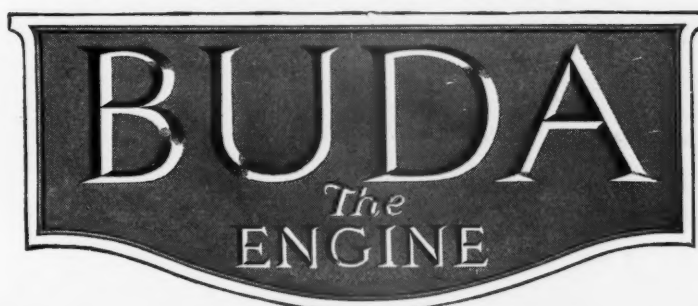
The ease and economy with which these engines have met the demand of this industry has proven the soundness of Buda design and construction. In long distance service the yearly

grind at the rate of 250 to over 400 miles per day is the regular duty of these engines. Schedules are met on time with their uniform vibrationless power flow with an ease that is gratifying.

In one of these two engines you will find the ideal power plant for your motor coach. Both are now in quantity production and available for immediate delivery. Write for detailed specifications.

THE BUDA COMPANY, HARVEY CHICAGO SUBURB ILLINOIS
ESTABLISHED 1881

Buy only genuine Buda Parts for your Buda engine



Lower ~ and Better

Graham Brothers second price reduction in four months, announced September 9th, is simply a reflection of the public's confidence in Graham Brothers Trucks.

The new 1-ton Truck chassis price, f. o. b. Detroit, is —

\$995

Without greatly increased production this latest exceptional cut would have been impossible — except for a sacrifice of the quality that has brought Graham Brothers so quickly to first position among the world's exclusive manufacturers of motor trucks.

The fact is that Graham Brothers Trucks are better than they ever were — and any owner will tell you they have always been remarkably good.

GRAHAM BROTHERS
Detroit — Evansville — Stockton
A DIVISION OF DODGE BROTHERS, INC.
GRAHAM BROTHERS (CANADA) LIMITED - TORONTO, ONTARIO

GRAHAM BROTHERS TRUCKS

*SOLD BY DODGE BROTHERS
DEALERS EVERYWHERE*

Control the brakes of every car in town

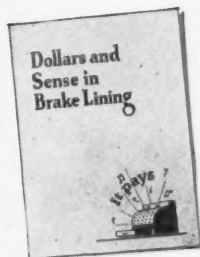
THE number of brake service stations that are springing up about the country is amazing!

It means that automobile repair men are at last realizing the tremendous amount of profitable business that is to be had from the brake drum.

It's a quick, easy, clean job.

It's a legitimate replacement job that occurs at least four or five times in the life of every car. This means nearly 100 million re-lining jobs from cars on the road today — and several dollars profit from each job too!

To get a good share of this business the first thing for you to do is to send for the book shown at the left.



The most complete book on getting profit from brake lining ever written. Send for it.

*The rest is easy
See next page*



6 ways to reline the whole town

1. *Personal Contact:*—

Ask 'em to re-line at the curb pump, at the accessory counter—everywhere throughout your shop.

2. *Use the mails!*

The postman can be one of your best salesmen. Tell every car owner in town that you are a brake specialist. Johns-Manville has specially printed post cards for the purpose. Ask your distributor for them.

3. *Advertise!*

Advertise your brake service in the local newspaper. Here again Johns-Manville can help you with cuts and plates for advertisements.

4. *Telephone.*

Follow up your prospects with the telephone. Remind them that perhaps their brakes need inspection and that happens to be your specialty.

5. *Display.*

Large signs inside and outside your shop telling the town that you re-line with Johns-Manville Brake Lining. We will provide you with attention-getting window displays and wall-hangers—free!

6. *Stunt Advertising.*

There are many ways that you can get the immediate attention of your entire town on their brakes. Make every motorist "brake-conscious" by conducting "safe brakes" campaigns, or capitalizing on a local accident, etc.

All the above ways of "telling the town" are thoroughly gone into in our new book "Dollars and Sense in Brake Lining." We believe it to be the most useful book on brake lining ever published by any manufacturer. Send for it under your letterhead. No charge.

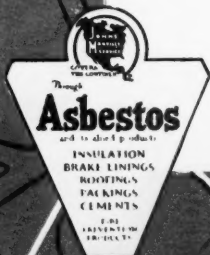
JOHNS-MANVILLE

JOHNS-MANVILLE Inc., 292 Madison Ave. at 41st St., New York City
Branches in 63 Large Cities

For Canada: CANADIAN JOHNS-MANVILLE CO., Ltd., Toronto

ASBESTOS BRAKE LINING CLUTCH FACINGS ~ PACKINGS ~ ETC.

Printed in U. S. A.



Quality Engineering, Units, Workmanship

In the Buck Truck will be found world famous major units and all other materials in keeping with the best standards, but the thing that counts, is motor truck engineering and workmanship of the highest order.

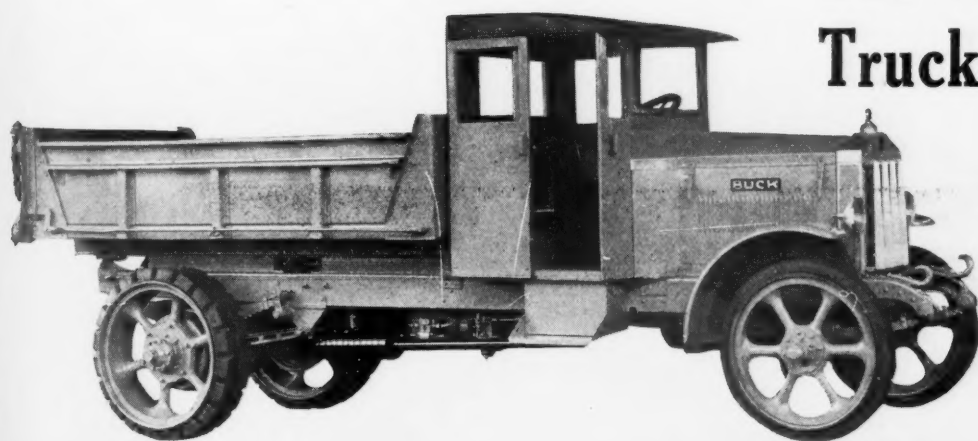
Buck offers dealers today just what their customers want—powerful, speedy, economical trucks. There are 9 models of 1½ to 7½ tons. Two are four-cylinder speed chassis (34 and 44); two, even speedier six-cylinder models (36 and 46); and five heavy duty chassis whose 7-speed-forward-2-reverse transmissions put them in the speed class.

We sell through dealers exclusively wherever dealers are available. Correspondence invited.

**The Buck Motor
Truck Company**

Bellevue

Ohio, U.S.A.



BUCK TRUCKS

IT PAYS

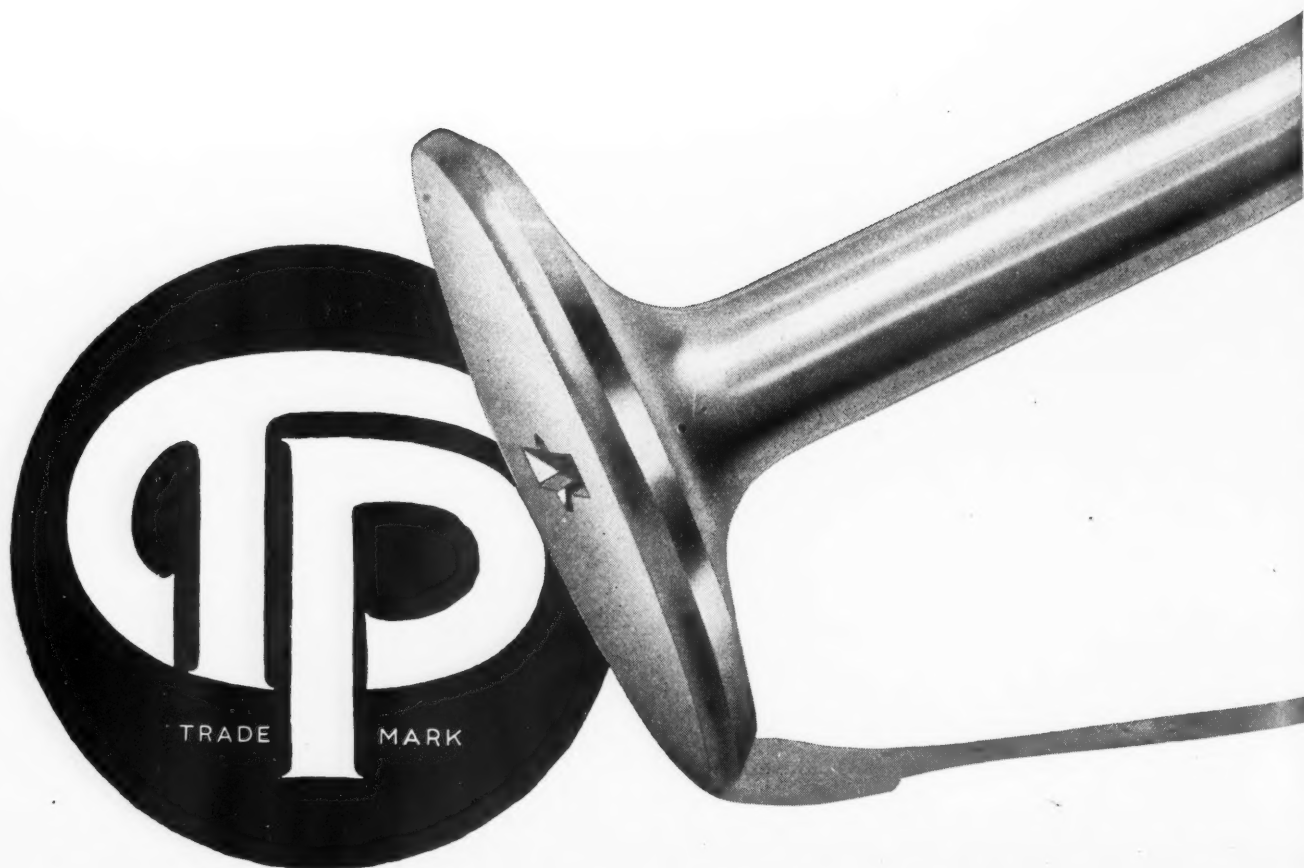
Both to You and

An *immediate* profit to you—because installation of new, high-grade valves amounts to more than regrinding old, worn-out valves.

A *future* profit to you—because the subsequent performance of the truck will help to hold a customer and bring in other customers.

Successful merchants in all kinds of business agree that good service at a reasonable profit builds up a more permanent trade than cheap service at little or no profit.

Trucks *have* to pay a profit over operating cost. The truck operator knows that to get this profit he has to *keep moving*—and he can't do that unless the heart of his motor is sound and steady. It is easy to show him the



PROFITS

to the Customer

value of valves that do not burn, warp or break as others do, that last longer, require fewer regrinds and *keep his engine on the job.*

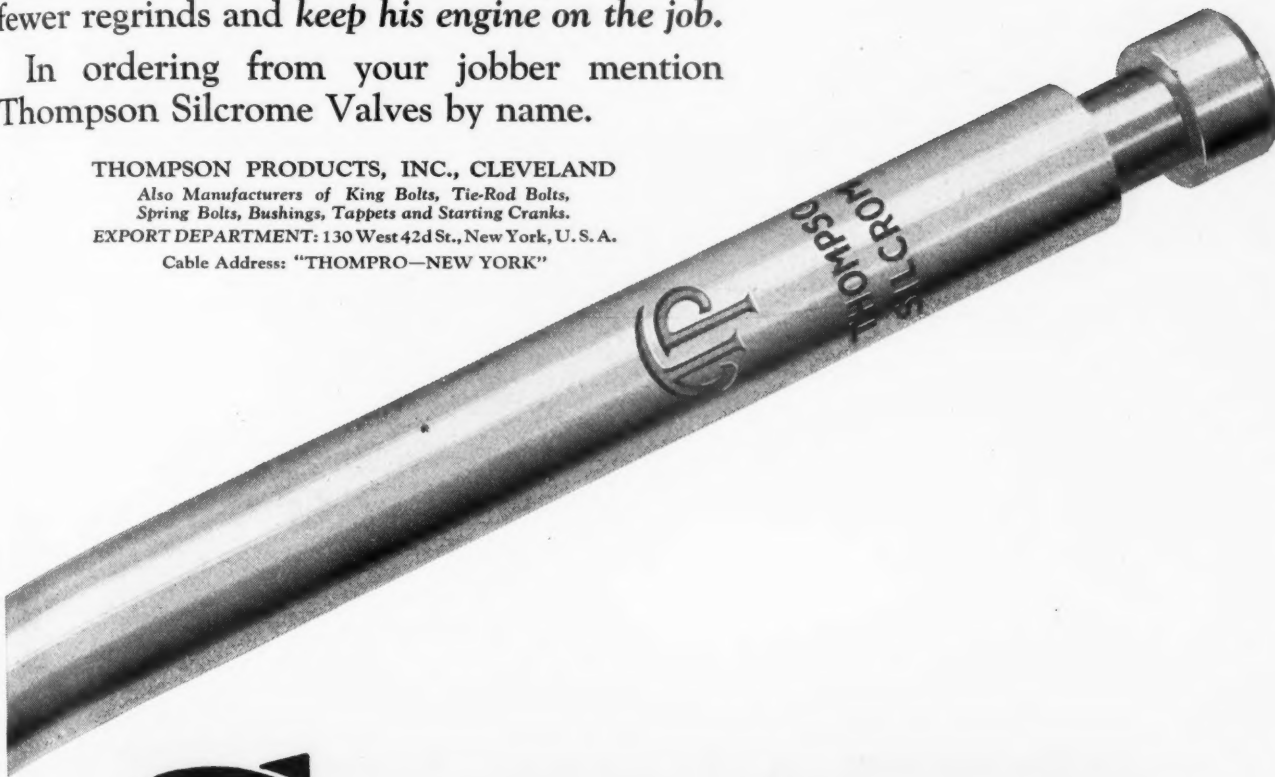
In ordering from your jobber mention Thompson Silcrome Valves by name.

THOMPSON PRODUCTS, INC., CLEVELAND

Also Manufacturers of King Bolts, Tie-Rod Bolts,
Spring Bolts, Bushings, Tappets and Starting Cranks.

EXPORT DEPARTMENT: 130 West 42d St., New York, U. S. A.

Cable Address: "THOMPRO—NEW YORK"



Thompson

Silcrome Valves

DUPLEX

WHERE DUPLEX SERVES IT SAVES



Low Operating Cost is the Standard by Which Big Business Measures Truck Value

All big corporations give as careful consideration to their transportation equipment as they do to accounting, sales or any other department.

Duplex has long stood the scrutiny and analysis of transportation experts and is the choice of those business economists who balance first cost, depreciation, and cost per ton miles during the life of the truck.

There is no better recommendation to the dealer than the sure manner in which Duplex has met the transportation needs of large operators.

This is one of the reasons why you should immediately investigate the Duplex Dealer Franchise.

DUPLEX TRUCK COMPANY

LANSING, MICHIGAN



SUPER-STROM BALL BEARINGS are standard equipment in America's most popular high-grade truck and the world's finest-engineered motor car.

Strom Ball Bearings

Insure greater dependability
with much longer life



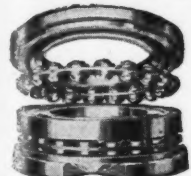
Single-acting thrust bearing, flat seats (grooved races) 1100-F Series



Double-acting thrust bearing, flat seats (grooved races) 2100-F Series



Single-acting, self-aligning thrust bearing, leveling washer, 1100-U Series



Double-acting, self-aligning thrust bearing, leveling washers 2100-U Series

UNINTERRUPTED service is the most important factor in profitable truck operation. Delays due to repairs mean increased expense in upkeep as well as loss of time in delivery. Trucks must be dependable—must be kept on the road—if the owner is to secure satisfactory returns upon his investment.

To insure utmost dependability of service, the engineers of America's leading makes of trucks are specifying Strom and Super-Strom Ball Bearings for use in all vital parts, particularly in transmissions, differentials and rear axles.

For Strom Ball Bearings increase the life of the part—give continued smoothness and quietness of operation by reducing friction and vibration to the minimum. Their superiority is proved by their enduring accuracy and much greater resistance to wear. They hold the axle or shaft in *permanently* rigid alignment, thus in-

suring longer life with greater dependability and freedom from repair expense.

The new Super-Strom is a stock bearing—of the deep grooved type without filling slots. It offers increased load-carrying capacity by the use of more or larger balls. In dimensional accuracy and concentricity, it compares favorably with bearings made to special specifications. Retainers are unusually sturdy—accurately pressed, rigidly riveted. The special analysis steel used in its manufacture is heat-treated throughout—not merely case-hardened—thus providing uniform hardness with elasticity which results in exceptional durability.

Strom Ball Bearings are available in quantity production—in a wide variety of types and sizes. Write for catalog and tables of load capacities at different r.p.m. and other technical data. Our engineers welcome inquiries.



Super-Strom deep groove, radial bearing



Double-row, deep-groove, radial bearing, bronze retainer



Angular contact bearing, combination radial and thrust

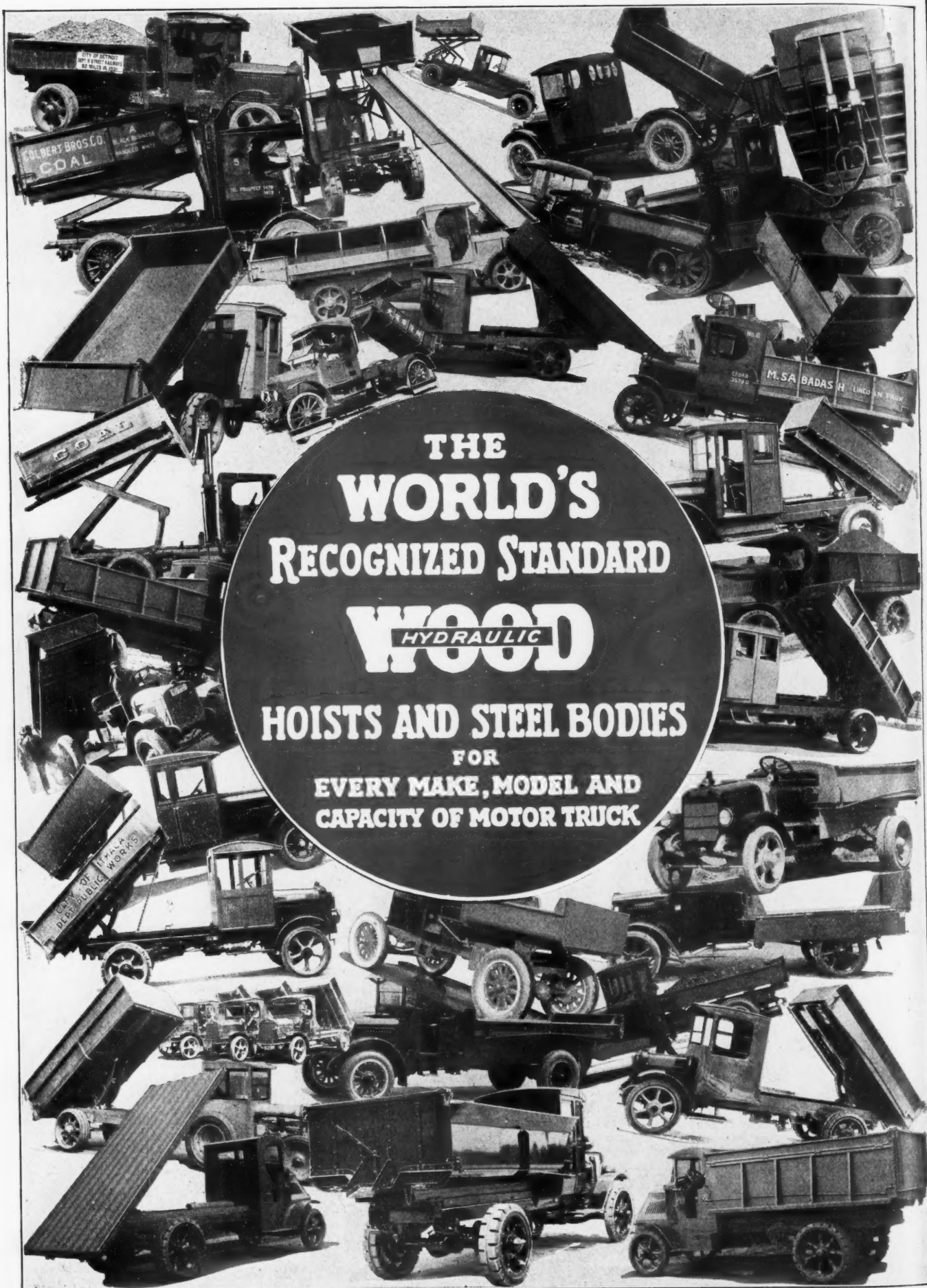


Adapter type bearing with sleeve

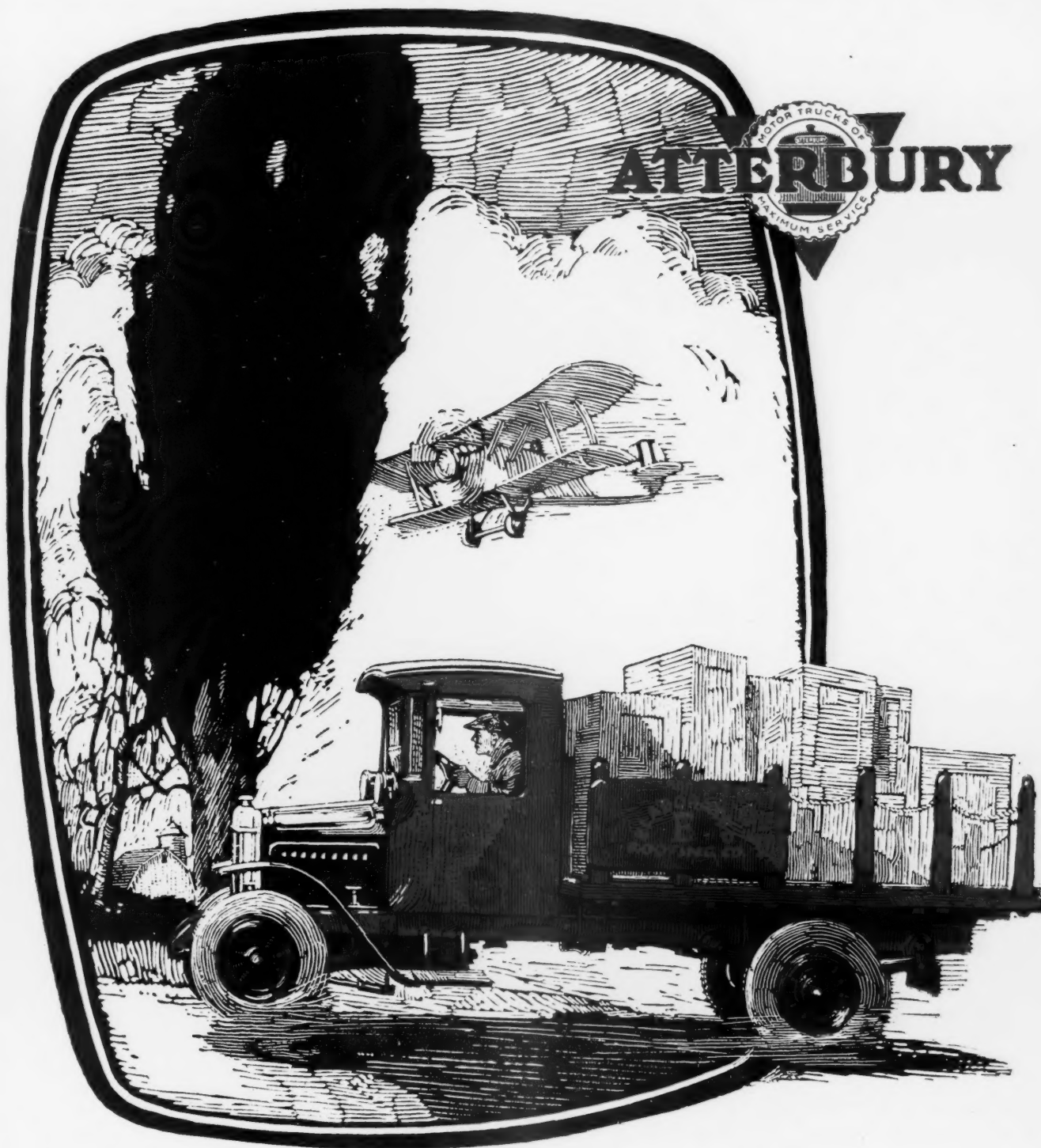
Strom

BALL BEARINGS

MARLIN-ROCKWELL CORP., Successor to
STROM BALL BEARING MFG. CO., 4542 Palmer Street, Chicago, Ill.



**THE
WORLD'S
RECOGNIZED STANDARD
WOOD
HYDRAULIC
HOISTS AND STEEL BODIES
FOR
EVERY MAKE, MODEL AND
CAPACITY OF MOTOR TRUCK**



Time was, when a fast truck meant a little truck and a big truck meant a slow truck. The Atterbury Highway Express sets a new pace with 2 tons capacity and 35 m.p.h.

"The Speed Truck The Nation's Business Has Waited For" is worth knowing about. Write for the story.

Atterbury Motor Car Company

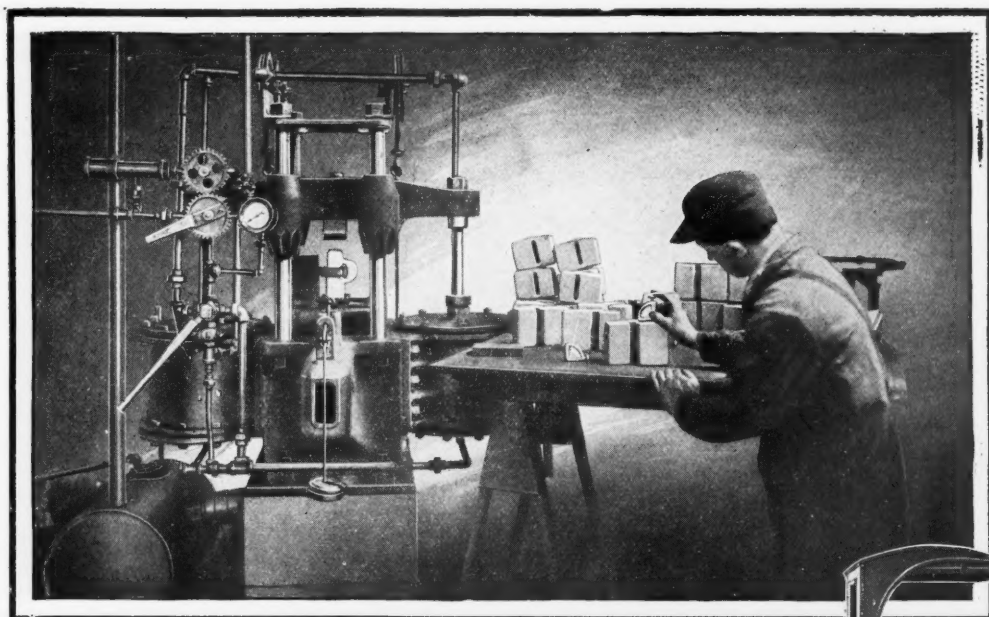
ESTABLISHED 1903

Elmwood Ave. at Hertel Buffalo, N. Y.

The complete Atterbury line also includes
2½-3, 3½-5 and 5-7 ton models

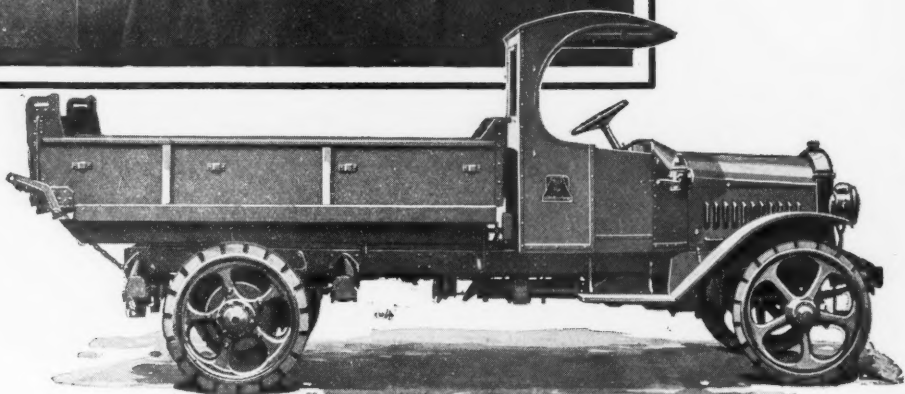
Atterbury Highway Express

THE SPEED TRUCK THE NATION'S BUSINESS HAS WAITED FOR



*Checking Mack
rubber shock
insulators*

Tested for Quality

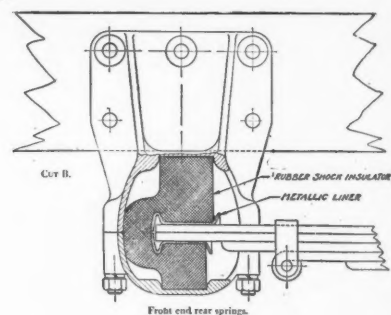


NO inferior shock insulators can find their way into a Mack spring assembly.

Every insulator is first carefully gauged for size and shape. Next it must pass a rigid test with a special instrument which measures its resiliency. Finally it is subjected to tremendous distortion, in the machine shown in the illustration.

Pressure is applied until the insulator is compressed to half its original height. After which it must return to its normal dimensions and shape, or be rejected.

In no step of Mack manufacture is production left to chance. Scientific knowledge plus a quarter century of practical experience represent the background of each Mack vehicle upon the public highway.



Capacities of Mack Trucks range from 1½ to 7½ tons —trailers to 15 tons. Write us concerning your particular hauling problem or visit our nearest branch.

MACK TRUCKS, Inc.

INTERNATIONAL MOTOR COMPANY
25 Broadway New York City

Ninety-two direct MACK factory branches operate under the titles of: "MACK-INTERNATIONAL MOTOR TRUCK CORPORATION" and "MACK MOTOR TRUCK COMPANY."



PERFORMANCE COUNTS



Profit is Their Proof

Goodrich Semi-Pneumatics inspire confidence in the look of them An experienced truck operator foresees their broader working range, their practical anti-skid and the cushioning feature But performance rendered in terms of profit clinches conviction Truck owners have found that they pay, and they say so Ask a Goodrich Distributor to show you their letters.

[To round out economical and efficient service in the operation of trucks and buses, Goodrich provides the famous De Luxe solid smooth type, Goodrich Semi-Pneumatics and Goodrich Silvertown Heavy Duty Cords.]

THE B. F. GOODRICH RUBBER COMPANY, Akron, Ohio
In Canada: The B. F. Goodrich Rubber Company, Ltd., Kitchener

Goodrich

"BEST IN THE LONG RUN"

Semi-Pneumatic TRUCK TIRE



Prest-O-Lite

THE OLDEST SERVICE TO MOTORISTS

Congoleum-Nairn, Inc., of Philadelphia, writes:

"THE Prest-O-Lite equipment on our motor-trucks gives entire satisfaction. We have found this to be the most economical and efficient equipment for truck lighting."

These words are typical of the messages of appreciation that are continually coming to us from fleet operators using Prest-O-Lite Gas for truck lighting.

No matter where the trucks are used, regardless of road and weather conditions, Prest-O-Lite equipment has invariably been found to be a dependable, economical source of light.

Legal everywhere.

Prest-O-Lite equipment—easy and economical to install and operate—will

at once give your trucks a longer working day and cut down ton-mile costs. By so equipping your trucks you will be taking full advantage of the experience of leading fleet operators throughout the country.

Up-keep is simple and inexpensive.

Thirty-six big gas-producing plants serve thousands of Prest-O-Lite Exchange Stations located all over the country. You can always get a full tank for an empty one by paying a small amount for the gas only.

As manufacturers of storage batteries for lighting trucks, as well as Prest-O-Lite Gas, we are in a position to tell you the lighting equipment that has proved satisfactory in various types of service.

THE PREST-O-LITE CO., INC., INDIANAPOLIS, IND.
New York San Francisco

In Canada: Prest-O-Lite Company of Canada, Ltd., Toronto, Ontario

Normal truck speed—at night— means more profitable hauling

INADEQUATE lighting equipment—that is the only thing that slows down your truck speed after dark.

And when truck speed is reduced, ton-mile costs go up just as surely as night follows day.

Trucks equipped with Prest-O-Lite Gas forge ahead through the dark hours, when roads and streets are clear of traffic congestion, at normal daylight speed.

The mellow, penetrating, dependable

light afforded by Prest-O-Lite equipment takes out all the risk. *Drivers can see—and be seen*, and that means safety.

These operators standardized on Prest-O-Lite Gas because they found by actual test what it would do for them.

Reduce your ton-mile costs. There is absolutely no better method than to follow the lead of other fleet owners and equip your trucks with clean, safe, convenient Prest-O-Lite lighting equipment.

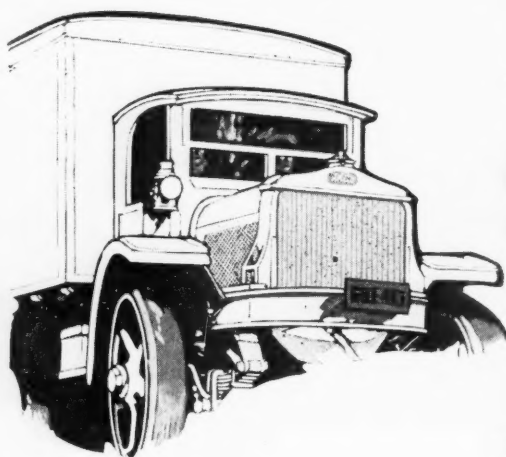
To truck dealers

Your customers look to you for equipment advice. Guarantee them absolute lighting satisfaction by selling them Prest-O-Lite Gas. Its faithful performance makes friends for you. By keeping Prest-O-Lite Gas in stock, you build up a profitable business in tank exchanges. *Write for our dealer proposition.*

THE BEST LIGHT FOR ALL TRUCKS



**100,000
200,000
300,000
miles and more**



There is a White Truck model to meet every transportation need. Truck chassis, \$2,150 to \$4,500; Model 50A Bus chassis, \$4,950; f. o. b. Cleveland.



Owners' actual records of White Truck mileage

336 Whites have run **300,000** miles and more each
759 have run between **200,000** and **300,000** miles each
1204 have run between **150,000** and **200,000** miles each
3720 have run between **100,000** and **150,000** miles each
*giving us the astounding total,
by owners' actual records ~*
6019 Whites have run **100,000** miles and more each

No truck owner will operate a truck long enough to run 100,000 miles unless those miles are money-earning miles.

* * * * *

More than 6,000 Whites, whose owners actually check and report mileages, have run 100,000 miles and more each. We have no accurate record of the hundreds of additional Whites which have exceeded 100,000 miles. We do not count them.

More than 300 have passed the 300,000-mile mark and are still giving dependable service. Many have exceeded 500,000 miles.

These are not isolated performances of one truck, or even one hundred. Thousands and thousands of Whites have made 100,000 miles and more a performance standard.

White Trucks in all sections of the world—all

models, in all lines of business—have carried their pay loads over their hundreds of thousands of miles in all weathers, climates and altitudes. Owners of single White Trucks are on this record. Other owners have whole fleets of 20 or 30 Whites that have run over 100,000 miles each.

We could offer no stronger proof that White Trucks give you more sustained, continuous, profit-making transportation than any other motor truck you can buy.

No other truck manufacturer has ever published such a volume of evidence of dependability, economy and long life. No other truck manufacturer can.

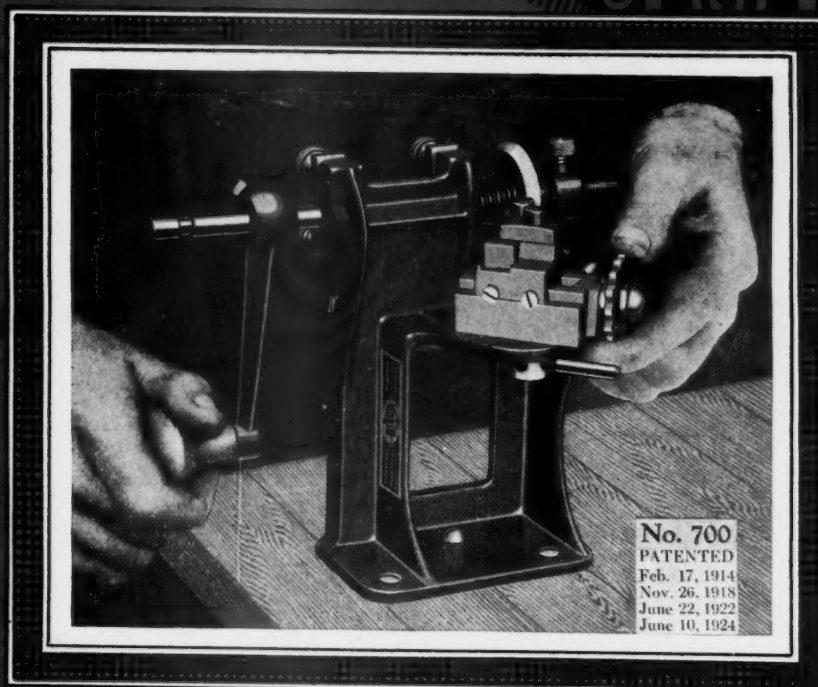
* * * * *

The names of all of the owners of the 6,019 White Trucks which have made these great mileage records are listed in a 100,000-mile booklet, published annually. You will find owners in your own section of the country, in your own line of business. Write for it. We will gladly send it to you—free.

THE WHITE COMPANY
CLEVELAND

WHITE TRUCKS

MADE RIGHT — SLOD RIGHT — KEPT RIGHT



LITTLE SIOUX VALVE LATHE

THE slickest little tool you ever saw for refacing valves. A few turns will give a clean smooth face that requires very little grinding in to make it seat perfectly. With pitted, carbon coated or warped valves this is the only way to be sure of a perfect job.

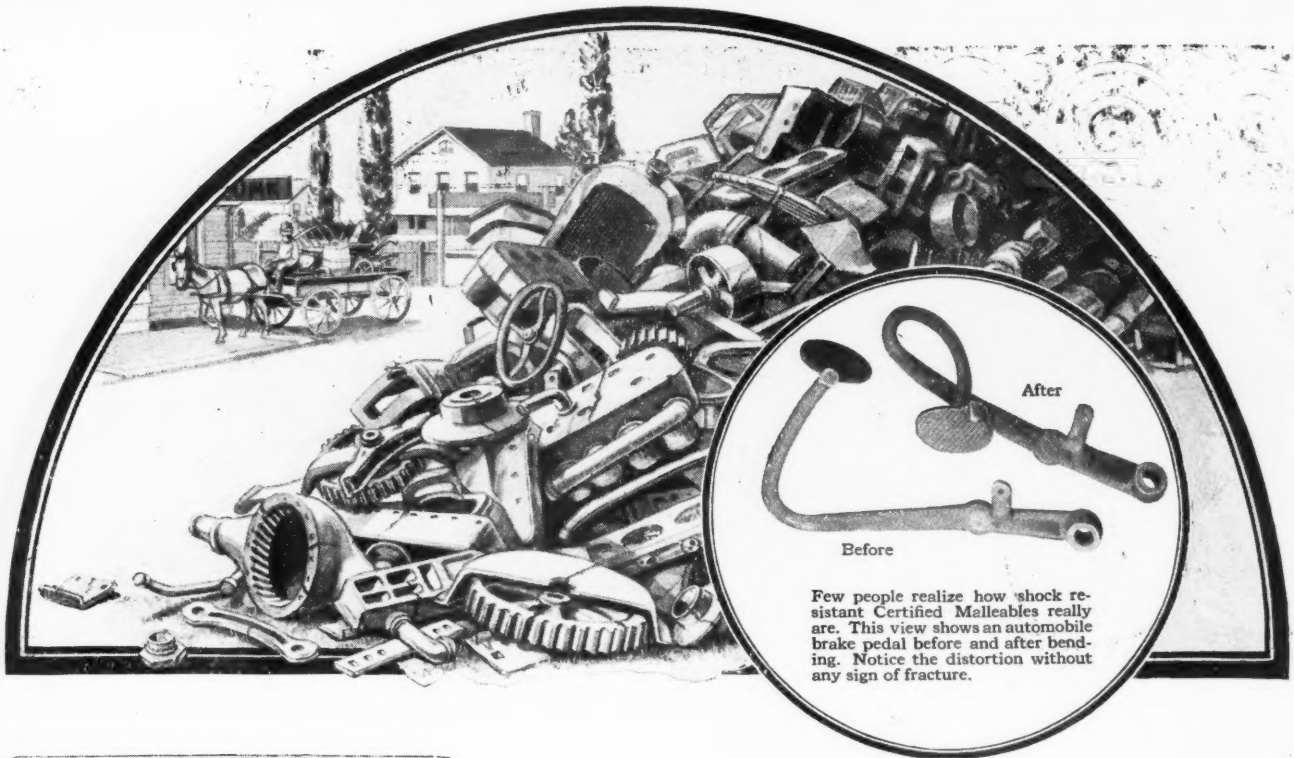
Any valve up to $2\frac{1}{2}$ inches—30, 45 or 60 degree angle—is refaced quickly and accurately by this handy little tool. It cuts the hardest steel valves—including tungsten steel. Its circular cutter leaves no ridges, and cannot get out of cutting line with the valve. It stays sharp a long time. The center adjustment has a positive stop. When set for a certain size valve it will always be perfectly centered for the same size valve. Two clamp Devices hold valve stem in perfect alignment.

**Your Jobber
Sells It**

ALBERTSON & CO.
SIOUX CITY, IOWA

SIOUX

Trade Mark Reg. U.S. Patent Office



Few people realize how shock resistant Certified Malleables really are. This view shows an automobile brake pedal before and after bending. Notice the distortion without any sign of fracture.

**Certificate Holders for the Quarter
Ending June 30, 1925**

Albany Malleable Iron Co.	Voorheesville, N. Y.
Albion Malleable Iron Co.	Albion, Mich.
American Chain Co.	Bridgeport, Conn.
American Malleable Castings Co.	Marion, O.
American Malleables Co.	Lancaster, N. Y.
Badger Malleable & Mfg. Co.	South Milwaukee, Wis.
Baltimore Malleable Iron & Steel Casting Co.	Baltimore, Md.
Belle City Malleable Iron Co.	Racine, Wis.
Chain Belt Co.	Milwaukee, Wis.
Chicago Malleable Castings Co.	West Pullman, Chicago, Ill.
Columbia Malleable Castings Co.	Columbia, Pa.
Columbus Malleable Iron Co., The	Columbus, O.
Danville Malleable Iron Co.	Danville, Ill.
Dayton Malleable Iron Co.	Dayton, O., Ironton, O., and Canton, O.
Deerfoot Malleable Iron Co.	Deerfoot, Ill.
Devin Mfg. Co., Thomas	Philadelphia, Pa.
Eastern Malleable Iron Co., The	Naugatuck Malleable Iron Works, Naugatuck, Conn.; Troy Malleable Iron Works, Troy, N. Y.; Wilmington Malleable Iron Works, Wilmington, Del.; Vulcan Iron Works, New Britain, Conn.
Eric Malleable Iron Co.	Erie, Pa.
Federal Malleable Co.	West Allis, Wis.
Fert Pitt Malleable Iron Co.	Pittsburgh, Pa.
Fraser & Jones Co.	Syracuse, N. Y.
General Electric Co.	Erie, Pa.
Glancy Malleable Corporation	Waukegan, Wis.
Illinois Malleable Iron Co.	Chicago, Ill.
Iowa Malleable Iron Co.	Fairfield, Ia.
Kalamazoo Malleable Iron Co.	Kalamazoo, Mich.
Lacoma Car Co.	Lacoma, N. H.
Lakeview Malleable Castings Co.	Racine, Wis.
Link-Belt Co.	Indianapolis, Ind.
Marion Malleable Iron Works	Marion, Ind.
McLane Malleable Iron Co.	St. Charles, Ill.
National Malleable & Steel Castings Co.	Cleveland, O., Chicago, Ill., Indianapolis, Ind., Toledo, O., E. St. Louis, Ill.
Northern Malleable Iron Co.	St. Paul, Minn.
Northwestern Malleable Iron Co.	Milwaukee, Wis.
Peoria Malleable Castings Co.	Peoria, Ill.
Pittsburgh Malleable Iron Co.	Pittsburgh, Pa.
Rhode Island Malleable Iron Works	Hillsgrove, R. I.
Rockford Malleable Iron Works	Rockford, Ill.
Ross-Meehan Foundries, The	Chattanooga, Tenn.
St. Louis Malleable Casting Co.	St. Louis, Mo.
Saginaw Malleable Iron Co.	Saginaw, Mich.
Standard Malleable Castings Co.	Terre Haute, Ind.
Stowell Co., The	South Milwaukee, Wis.
Superior Steel Castings Co.	Boston Harbor, Mich.
Symington Co., The	Rochester, N. Y.
Terre Haute Malleable & Mfg. Co.	Terre Haute, Ind.
Trenton Malleable Iron Co., The	Trenton, N. J.
Union Malleable Iron Co., The	E. Moline, Ill.
Vermilion Malleable Iron Co.	Hoopeston, Ill.
Wagner Malleable Castings Co.	Hammond, Ind., and Beloit, Wis.
Warren Tool & Forge Co.	Warren, O.
Webster Mfg. Co., The	Chicago, Ill.
Wisconsin Malleable Iron Co.	Milwaukee, Wis.
York Mfg. Co.	York, Pa.
Zanesville Malleable Co.	Zanesville, O.

Reduce the Nation's Scrap Pile By Using Certified Malleable Iron

EVERY piece of metal in this scrap pile could tell a story of breakage, disappointment and expensive delay. Disrupted train schedules, costly wrecks, expensive harvest delays, dangerous breakdowns of trucks and motor cars, and failures of vital parts in all classes of machinery represent an annual waste of time and money that runs into many millions of dollars.

Most of this waste could be prevented by the more liberal use of Certified Malleable Iron which is strong enough and durable enough to resist breakage and insure absolute safety.

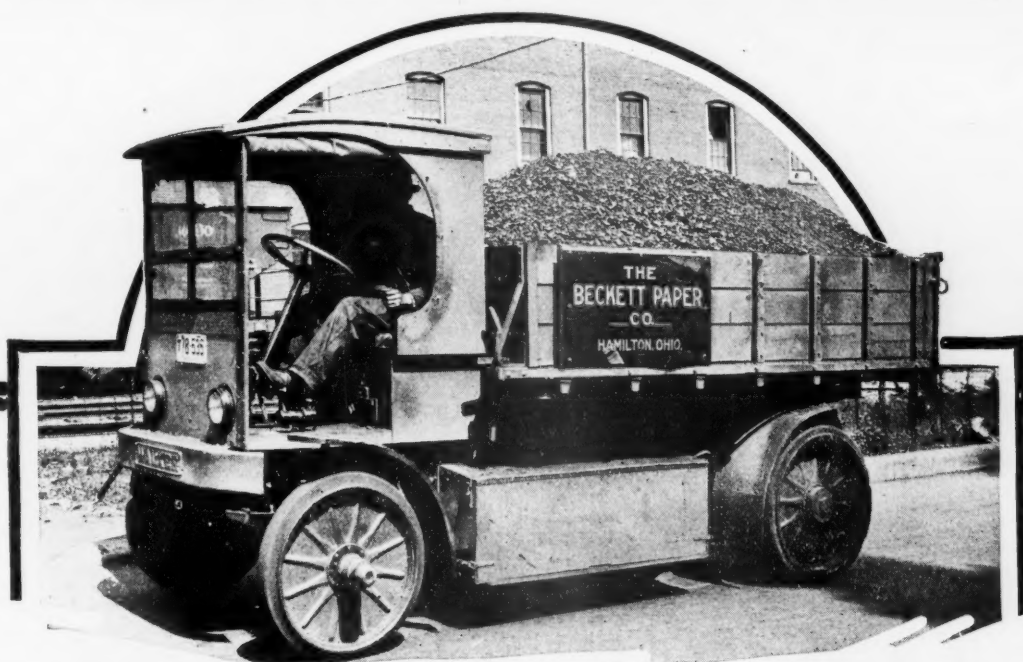
Certified Malleable Iron will stand more shock and abuse without breakage than any other ferrous material. Therefore, it should be used wherever parts must withstand shock and vibration, where breakage must be eliminated and where time saving is essential.

Certified Malleable Iron is the product of those plants who receive a quarterly certificate of merit from the consulting engineer of the American Malleable Castings Association; certifying that their product has met his exacting physical tests and that their plant practice, as shown by rigid inspection, insures the production of uniform malleables of the highest quality and integrity.

AMERICAN MALLEABLE CASTINGS ASSOCIATION
UNION TRUST BUILDING CLEVELAND, OHIO



CERTIFIED-MALLEABLE CASTINGS



Over \$8,000,000

—have been invested by these representative companies
in Walker Electric Trucks:

American Railway Express Co.
Bush Terminal Co.
Cushman's Sons, Inc.
National Biscuit Co.
Commonwealth Edison Co., Chicago
Marshall Field & Co.
Bowman Dairy Co.
Gimbel Bros.
Abraham & Straus
J. T. Castles Ice Cream Co.
Mandel Bros.
National Tea Co.
Golden Rod Ice Cream Co.
Bloomingdale Bros.
New York Edison Co.
Stern Bros.
Old Homestead Bakery
Peoples Gas Light & Coke Co.
Eastman Kodak Co.
Jackson Storage & Van Co.

WALKER VEHICLE COMPANY

LEADING MANUFACTURER OF ELECTRIC STREET TRUCKS
CHICAGO

WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES

Three Essentials of Bus Seating

Comfort—Appearance—Durability



No. 208 DeLuxe

With Individual Backs, Spring Cushions
and Air Cushion Pads

For half a century Hale & Kilburn has specialized in designing seating equipment suitable for every type of passenger transportation and has originated all the important improvements in this line. H & K Seats are in use upon nearly every steam and electric railway in the United States.

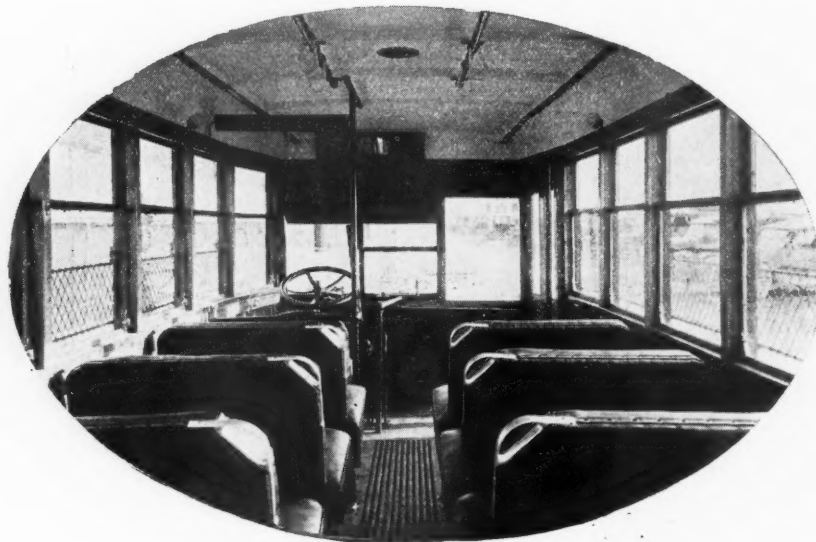
Definite superiorities of design and construction make possible this popularity.

These same characteristics are embodied in H & K bus seats. They enhance the appearance of the job and the luxuriant comfort they afford is an attraction to the bus traveling public.

Styles of seats for

every type of bus

Prices on application



Interior of Bus Equipped With Hale-Kilburn Seats

HALE-KILBURN COMPANY

General Offices and Works:
1800 Lehigh Avenue, Philadelphia

SALES OFFICES:

Hale-Kilburn Co., 30 Church St., New York
Hale-Kilburn Co., McCormick Bldg., Chicago
Equip. Sales Corp'n, Railway Exch. Bldg., St. Louis

E. A. Thornwell, Candler Bldg., Atlanta
Frank F. Bodler, 903 Monadnock Bldg., San Francisco
Chris Eccles, 320 S. San Pedro St., Los Angeles
T. C. Coleman & Son, Starks Bldg., Louisville

W. L. Jefferies, Jr., Mutual Bldg., Richmond
W. D. Jenkins, Praetorian Bldg., Dallas, Texas
W. D. Jenkins, Carter Bldg., Houston, Texas
H. M. Euler, 46 Front St., Portland, Oregon

BRISBANE prophesies a **CERTAINTY** of **PROSPERITY** beyond our fondest hopes—he bases it on a sound study of the World's History.

Nothing Succeeds Like Success

and the remarkable success of

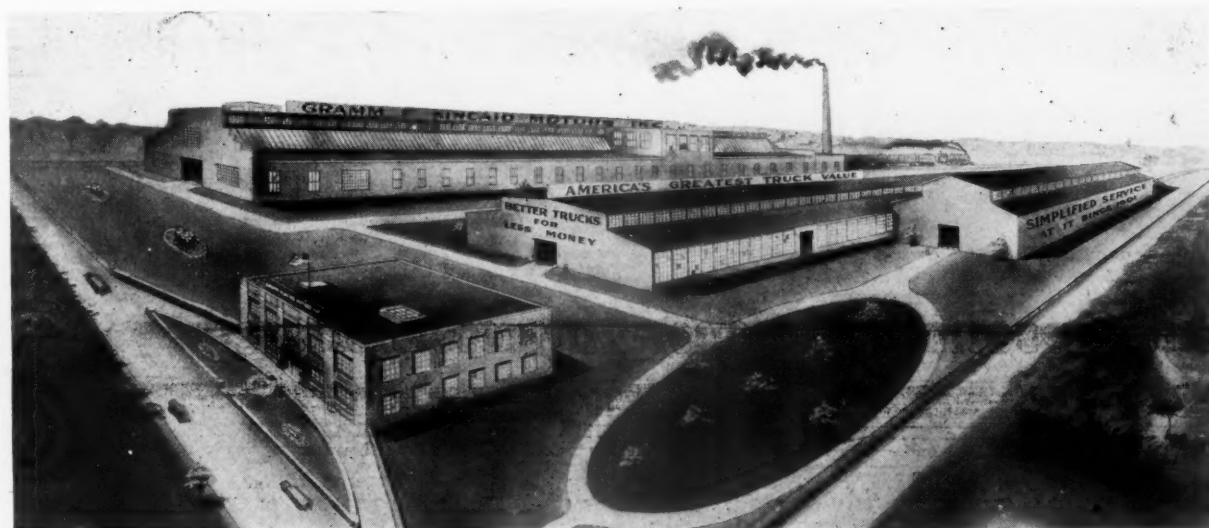
Gramm & Kincaid Motor Trucks

Is the result of knowledge and experience gained in a period of 25 years covering every phase of Motor Transportation, and our wonderful **STANDARDIZED DESIGNS** and **SIMPLIFIED SERVICE** come from a scientific application of this knowledge.

Get Ready for a New Era of Transportation

Investigate and compare from every angle and you will understand our claim to

America's Greatest Truck Dollar Value



We have just moved into our New Plant, ideal for economical production

"GRAMM" says:—A well advertised and low priced motor truck doesn't always mean a paying investment to the purchaser. It takes scientific designing, based on knowledge and experience and a correct adaptation to the transportation services required.

GRAMM & KINCAID MOTORS, INC., Lima, Ohio, U.S.A.

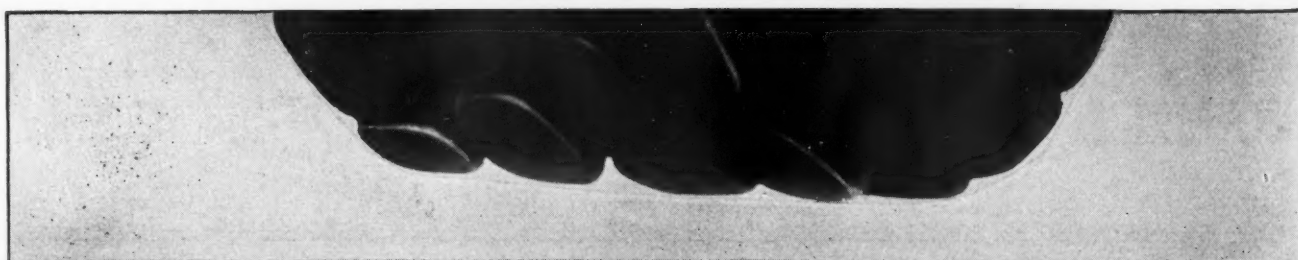
We are connected with "Motor Truck Industries, Inc. of America"



With everyone predicting a tough winter ahead, can you, as a truck operator, afford to overlook the extra safety to truck, driver and load; the extra assurance of prompt deliveries; the extra economy in operating costs offered by the

STAGHOUND

the tire with the surest road grip ever developed, carrying the **15,000** mile guarantee of all
REPUBLIC TRUCK TIRES





Moving Ahead

EVERYWHERE and in almost every line of industry, SCHACHT TRUCKS are moving the Nation's business faster, safer and more economically than it has ever been handled before.

From single units to large fleets, these dependable trucks are revolutionizing transportation methods.

SCHACHT leadership has long been recognized because of more

than 25 years of pioneer service in the progress of motor transportation. The record of SCHACHT improvements during this period has been a source of pride to us and profit to thousands of SCHACHT users.

Many important and exclusive features are to be found on the new SCHACHT TEN SPEED TRUCKS. If you haven't investigated them, write today for folder CCJ.

Capacities—1 to 7½ Tons

THE G. A. SCHACHT MOTOR TRUCK COMPANY

"Pioneers in Motor Transportation"

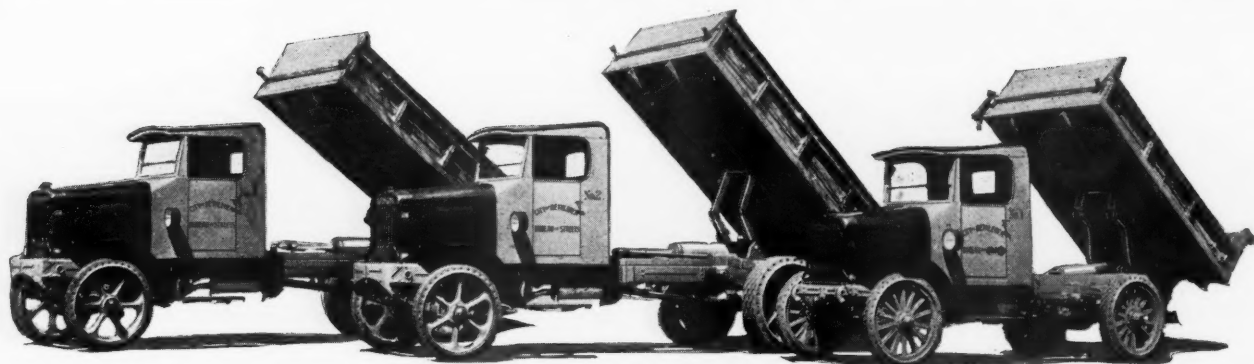
Cincinnati, Ohio

New York Branch: 220 Thirteenth St., Long Island City

New Jersey Branch: 400 New St., Newark

SCHACHT

Ten Speed TRUCKS



A fleet of three St. Paul Underbody Hydraulic Hoist-equipped International trucks just delivered to the City of Bethlehem, Pa. More Municipal Prominence!

The large number of new fleets, of St. Paul Hydraulic Hoist equipped trucks, being put into daily service, is further evidence of the popularity of these Hoists.

You get more than service from St. Paul Hoists. The name "St. Paul" stands for economical operation, and absolute dependability.

There is a St. Paul Hoist for every model and capacity of motor truck and there are fifty-four St. Paul Service Stations eager to help you solve your haulage problems.

Specify "St. Paul Hydraulic Hoists" for Service



Seven more St. Paul Underbody Hoist equipped trucks recently delivered to W. W. McGee, St. Paul, Minn., completing a fleet of fifteen trucks.

HYDRAULIC HOIST MANUFACTURING CO.

FACTORIES at St. Paul, Minnesota

DISTRIBUTORS and SERVICE STATIONS Everywhere

Write for Name and Address of One Nearest You

—St. Paul—
 VERTICAL AND UNDERBODY
 HYDRAULIC HOISTS



The new Stewart 6 cylinder speed truck

A NEW six-cylinder speed truck has been added to the Stewart line—1½-to 2 ton capacity with 32 x 6 cord tires front and rear.

See this new Stewart—it sets the mark in speed truck construction for its particular capacity—a remarkable truck at a remarkable price. All truck, every inch of it designed by a company which makes nothing but trucks,—the best truck value on the American market; nothing of its size can compare with it from the standpoint of price, performance, satisfactory service.

It is dollar for dollar value all the way through and more—low first cost, low operating cost. It is easy riding, easy to handle—you cannot realize what this means until you get back of the wheel and feel it for yourself. It is a truck you will enjoy driving, enjoy owning because of its saving in gasoline, oil, tires, repairs. A truck which is good for years of hard service—you will like it better the longer you run it.

Other Capacities	
1 Ton Chassis (4 cyl.)	\$1195
1¼ Ton Chassis (6 cyl.)	\$1295
2 Ton Chassis	\$1890
2½-3 Ton Chassis	\$2895
3½-4 Ton Chassis	\$3795
f. o. b. Buffalo plus tax	

4-cylinder chassis \$1595

6-cylinder chassis \$1695

f. o. b. Buffalo plus tax

The Stewart Franchise is liberal and a money-maker for the dealer — write for details.

Stewart

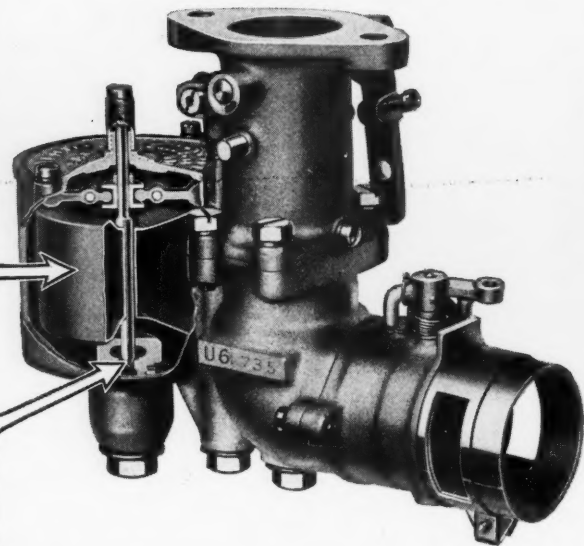
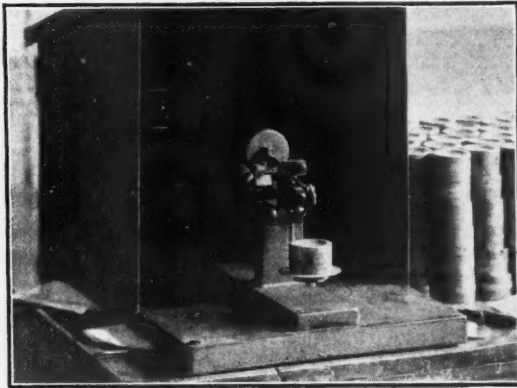
MOTOR TRUCKS

STEWART MOTOR CORPORATION, BUFFALO, N. Y.

EXPORT BRANCH, Dept. 3, 90 West Street, New York, N. Y. All Codes Used

ZENITH

The Zenith Float Mechanism and the Tests



(Upper) Zenith floats being weighed. A variance of one gram—1.28 of an ounce—from the specified weight causes them to be scrapped.

(Lower) Zenith needle points being inspected under a microscope which magnifies 144 diameters. This inspection discloses any imperfections however minute, which may remain after grinding.

ZENITH
 CARBURETOR

*There is a Zenith, tested
and proven, for every motor.*

With such modern instruments and such rigid inspection to guard the gas flow, a Zenith must be frugal—it is no wonder it is known as the economy carburetor.

And yet the speediest and most powerful engines are Zenith-equipped.

ZENITH-DETROIT CORPORATION

Manufacturer of

ZENITH CARBURETORS

DETROIT

MICHIGAN

Branches:

NEW YORK

CLEVELAND

CHICAGO

Over 1100 Service Stations



Garford Model 80—4-Ton Trucks—A part of present fleet to which will be added soon ten additional units of same make and capacity

“Long, Careful Observation and Cost Record Keeping”

says The Globe Ice Cream Company of Los Angeles, California, “has proved the efficiency and economy of Garford Trucks, so much so that The Globe Ice Cream Company has adopted, as standard equipment, the Model 80 Garford Four-Ton gasoline driven truck.”

Starting business in July, 1922 with ten ice cream delivery trucks and three general service trucks, their business has grown to the point today where their transportation problems require twenty-five trucks and five general service cars. A repeat order for ten additional 4-ton Garfords are to be delivered in the very near future which will bring their truck fleet up to a total of thirty-five units.

“In the matter of maintaining an efficient and economical truck fleet, the primary consideration should be given to the size and type of the truck and the body which is to be used,” continues The Globe Ice Cream Company.

An enviable record of success in furnishing fleet users with equipment that exactly meets their requirements has been established by Garford for many years. Each day brings additions and repeat orders.

With a line of Motor Trucks and Motor Buses which have built many fleets through efficient and economical operation, Garford offers an opportunity to dealers worth investigating.

Write for the article “Why We Standardized on Garfords,” prepared by an official of The Globe Ice Cream Company. It will be mailed you without obligation

THE GARFORD MOTOR TRUCK CO.

LIMA, OHIO

MOTOR TRUCKS, 1 TO 5 TONS

MOTOR BUSES, 17 TO 30 PASS.

Writers who mould automotive thought

Producing a Newsy, Well Balanced, Interesting Publication is His Forte



SAM SHELTON
Editor of Motor Age

There are many men who regard an editorship as an opportunity to ride a hobby. They make a publication that conforms to their ideas of what the readers *ought* to like and not what they really want.

Not so Sam Shelton, editor of Motor Age. He is a highly successful editor because he seems to have an instinctive knowledge of what dealers want in a trade paper—and gives it to them.

It's no easy task to produce a well balanced publication that will be interesting to all readers—but Shelton has just that knack. He might be compared to a famous chemist who deftly mixes various ingredients in proper proportions and produces something of great value to the industry. So Shelton mixes his news, articles, descriptions, etc., and turns out an issue that mightily pleases its recipients.

Shelton was born in Missouri—and—like all Missourians—must be shown. Anything that gets by him has to be good. He has a highly developed sense of news value, the result of many years of experience in the newspaper field, and unerringly selects the material which will be of the greatest interest to the readers of his publication. This is one reason why Motor Age is increasingly popular with the man in the trade.

As a writer Shelton was always drawn to work that requires diligent investigation and keen analysis and which results in the spreading of useful information, the promotion of constructive effort, the correction of evils and the rendering of a definite service. It is these qualities which make his articles so valuable to Motor Age readers.

On leaving college, Shelton bought a weekly country newspaper, later joining the staff of the St. Louis Post Dispatch, where he remained for some years. He also was director of publicity for the Associated Industries of Missouri, helping in the organization and direction of this large association of manufacturing and business firms.

In his present connection Shelton has done much to increase the editorial prestige of the Chilton Class Journal Company.

This is one of a series of announcements dealing with the editorial strength of Chilton Class Journal publications. Each issue will carry a brief sketch of an editor or principal contributor to the group.

The purpose of this series is to place before you the facts about our editorial work so you may know its scope and magnitude and the ability, experience and attainments of the men whose articles you read in these publications.

Writers who mould automotive thought

He's Known by Dealers From Coast to Coast



A. V. COMINGS
Editor
Automobile Trade Journal

"Hello, A. V.!" is the cheery salutation that greets A. V. Comings, editor of the Automobile Trade Journal, wherever his smiling countenance makes its appearance in a dealer's establishment.

No matter where you go—north, south, east or west—you find Comings is generally known and universally liked by automotive dealers. He is always welcomed for he is recognized as their friend, with their problems on his heart and mind. They appreciate the information he brings and the suggestions he makes, just as much as they do his two-fisted articles.

Comings probably holds the mileage record of the organization for he has been almost constantly on the go for a number of years. Up and down the country, over and across, his trail winds in and out, as he attends conventions here, dealers' meetings there, and calls on dealers, jobbers, executives and garagemen in between times.

This close contact has given him a wonderful insight into the problems confronting the dealers of the country. He knows by personal touch the difficulties peculiar to each section and the obstacles to success which dealers everywhere must face.

Hence, his articles are full of a sympathetic understanding and are very practical in their suggestions. He writes out of a fullness of knowledge that makes his stories of real help to dealers. His fearless, straightforward manner of writing so pleases dealers that they frequently write, "You've hit the nail on the head" and similar commendatory remarks.

Comings has been a newspaper man, steel car builder, magazine publisher and editor before joining the Chilton Class Journal Company. In his seven years with this organization he has been an almost constant traveler and has addressed hundreds of dealers' meetings, associations, etc.

Because of his knowledge of the business, acquaintance with dealers, and forceful writing, A. V. is a big asset to any editorial organization.

This is one of a series of announcements dealing with the editorial strength of Chilton Class Journal publications. Each issue will carry a brief sketch of an editor or principal contributor to the group.

The purpose of this series is to place before you the facts about our editorial work so you may know its scope and magnitude and the ability, experience and attainments of the men whose articles you read in these publications.



Judge a Truck by Its Owner

Take Detroit for example, and look over the long list of Gotfredson owners. Beginning with the City of Detroit, the list of Gotfredson owners reads like a roster of the industrially and commercially great. In Detroit—the world's most exacting motor market—Gotfredson has won to leadership in three years by sheer merit.

Consider the truck and the organization that makes it—you will recognize the sound value of a Gotfredson Sales Franchise in your territory.

Gotfredson Corporation
MOTOR TRUCK DIVISION
 3601 Gratiot Avenue
 Detroit, Michigan.

BRANCHES:

Detroit Cleveland
 Los Angeles
 Indianapolis
 Chicago New York
 Walkerville,
 Hamilton, Montreal,
 Toronto, Canada

FACTORIES: Detroit and Walkerville, Ontario

FOREIGN SALES:

London Paris
 Sydney, Australia
 Athens, Greece



TIMKEN



Stopping and
Starting

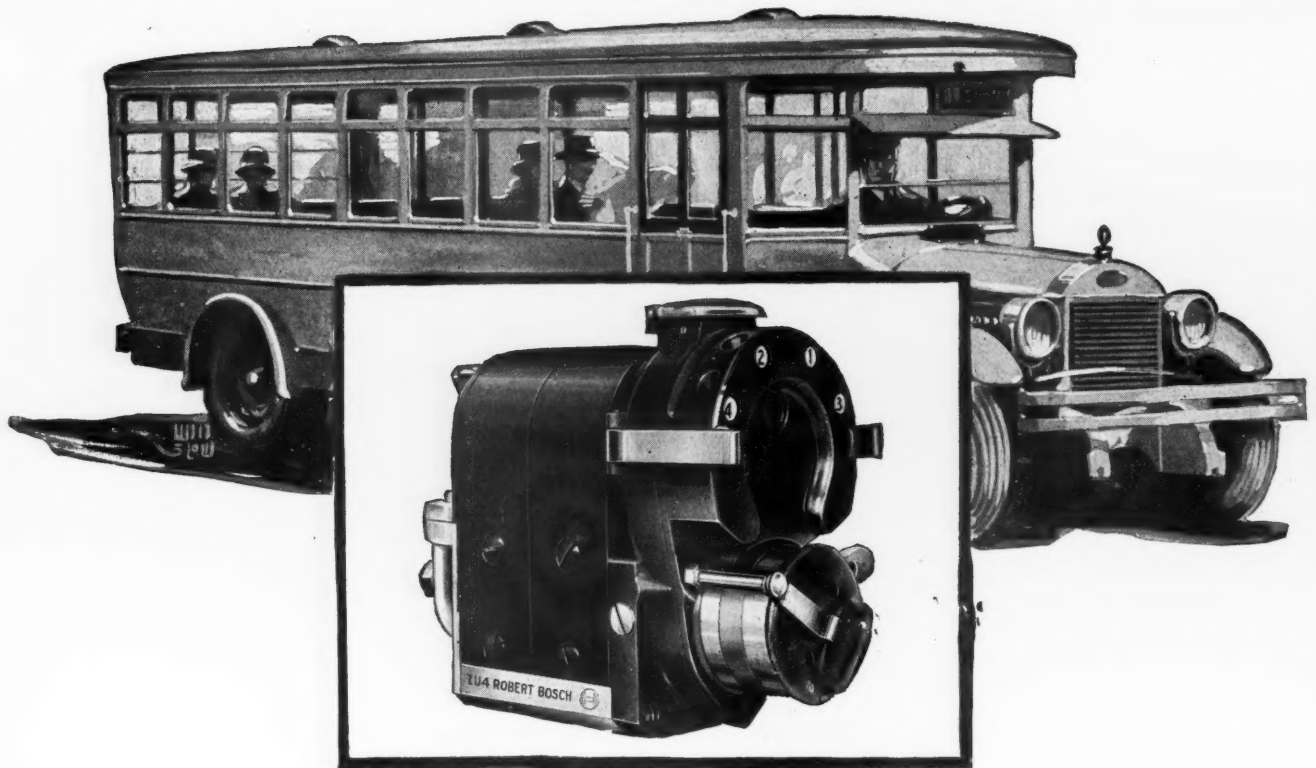
In Congested
City Traffic

This Timken worm and wheel ran 127,029.9 miles, over a route of 13.1 miles, covered in 70 minutes *through congested city traffic, stopping and starting continuously.* The Detroit Motorbus Company, who operated the bus from which these parts were removed, said, "This worm and wheel has not entailed any expense whatever in maintenance outside current greasing. The worm ... is good for many more miles ... had you not asked to have it for exhibition purposes."

FIRST COST IS UNIMPORTANT WHEN IT IS THE ONLY COST

THE TIMKEN-DETROIT AXLE COMPANY, DETROIT, MICHIGAN

AXLES



This finest of MAGNETOS will prove to be the cheapest, too



The *Original* Bosch generator replenishes the battery with "tapered" current. This constant voltage means an even balance of battery current at all times.



The *Original* Bosch Horn has won quick popularity among fleet owners, because of its penetrating, yet musical note, so different from the tone of other horns that it secures attention where other horns are unheeded.

YOU may be tempted to save a few dollars on initial cost by using a poor magneto. But remember this: Repairs on inferior magnetos quickly exceed the slightly higher first cost of *Original* Bosch. This finest of magnetos soon pays for itself by staying on the job day in and day out. Ask any automotive engineer or fleet owner who has tested *Original* Bosch Magnetos.

The same high quality that has made the *Original* Bosch Magneto world-famous is to be found in the whole line of *Original* Bosch products: generators, spark plugs, starters, horn, etc. Write for literature on any or all of these.

Robert Bosch Magneto Company, Inc., 119c West 64th St., New York City. Chicago Branch: 1302 South Wabash Avenue.

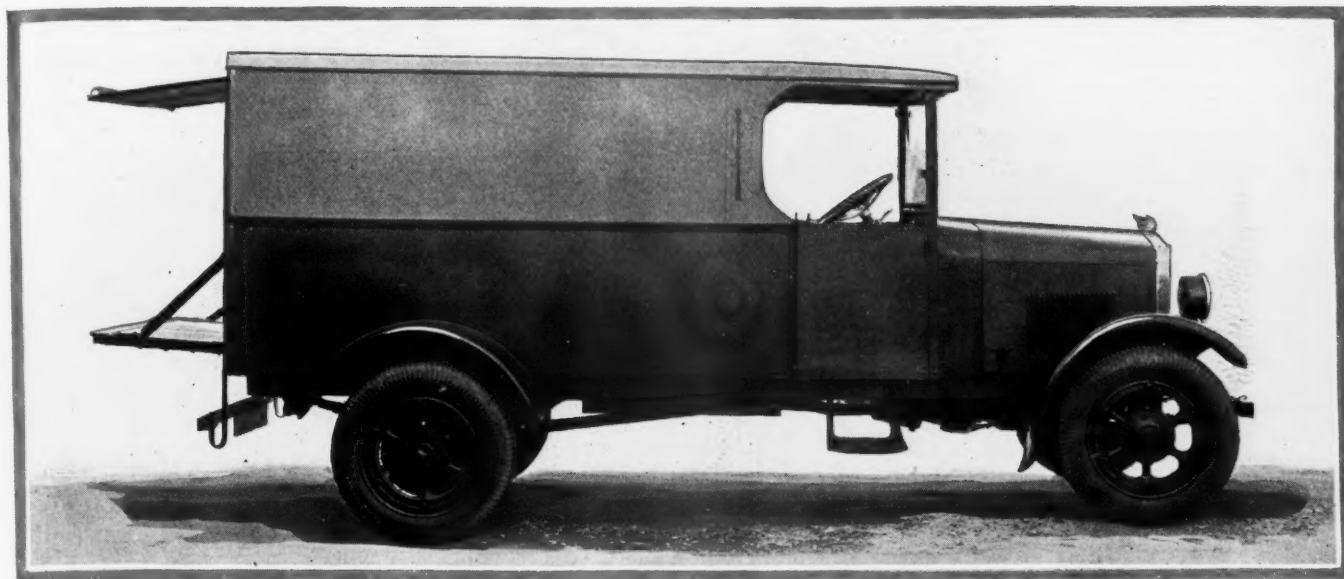
The Original
Bosch



This trademark and the name "Robert Bosch" are your guaranty of Original Bosch quality as known the world over since 1887.

ROBERT • BOSCH • MAGNETO • COMPANY • INC.

No connection whatsoever with the American Bosch Magneto Corporation



Dependability—

is the distinguishing feature of the new Commerce one-ton distributor. The Commerce Distributor meets the requirements of those who need a high grade, speedy, six-cylinder truck that will stay on the road all the time.

Commerce trucks are backed by fourteen years of truck building experience and the highest type of engineering skill. Commerce trucks have proven their superiority in the hands of thousands of owners whose choice year after year is Commerce.

Commerce dealers are prosperous. There is still some territory open to responsible dealers. An announcement to be made in the near future will make the Commerce Franchise the most valuable in the United States. Write us for details.

Commerce

COMMERCE MOTOR TRUCK COMPANY YPSILANTI, MICHIGAN

Export Dept.: 132 Nassau St., New York City

Cable: Comerstrux

SPECIFICATIONS

Cast aluminum radiator shell—4 piece
Six cylinder Continental Red Seal motor
Plate clutch
Transmission in unit with motor—Ball bearing throughout
Oil tight universal joints
Spiral bevel gear rear axle
Double internal brakes
Smith steel spoke wheels
30" x 5" tires all around
4½" heat-treated frame

PRICE

\$1395

F. O. B. Ypsilanti

MODEL SUPER 11 1½ TON

Continental S-4 motor, 4¼" bore x 4½" stroke. Spiral bevel gear rear axle. Wheel-base, 142 inches. Pneumatic cords, 34" x 5" front and 36" x 6" rear.

MODEL SUPER 14 2 TON

Continental S-4 motor. Timken worm drive. Standard wheel-base, 146 inches. Long wheel-base, 160 inches. Equipped with either solid or pneumatic tires.

MODEL 25 2½ TON

Continental K-4 motor, 4⅞" bore x 5¼" stroke. Timken worm drive. Standard wheel-base, 156 inches, special wheel-base, 144 inches or 176 inches. Solids or pneumatics.

POWERMATIC

Automatic power unloading truck for lumber, building supplies, etc. Built on the model 25. Sold only as a completely equipped truck, including unloading mechanism and body.



The Highland Cab is neat, trim and good-looking, whether open, partly closed or fully closed. Quickly adjusted to suit the weather and the driver.

Safe, Strong, Quickly Adjusted

THE sliding doors of Highland cabs never protrude at the side — as hinged doors will when the cab runs open — and this eliminates the possibility of many traffic accidents. The absence of posts gives the driver a clearer, less obstructed view. The sliding door makes it possible to load long material that lays alongside the cab — and the doors can still be opened and closed.

Vision is clearer with the Highland cab than with any other. Curtains soon get murky and hard to see through. The lights break out and cause expense. But Highland cabs provide clear vision indefinitely.

Only a few movements are required to slide back the windows or doors in a Highland cab. It can be used fully open, half open or entirely closed.

Any truck manufacturer or dealer can supply you with a Highland cab. They cost no more. Trucks already in use can be equipped by our local distributors in most big cities. Write for prices and the name of our nearest distributor.

THE HIGHLAND BODY MFG. COMPANY
403 Elmwood Place, Cincinnati, Ohio

HIGHLAND Cabs

Stewart-Warner



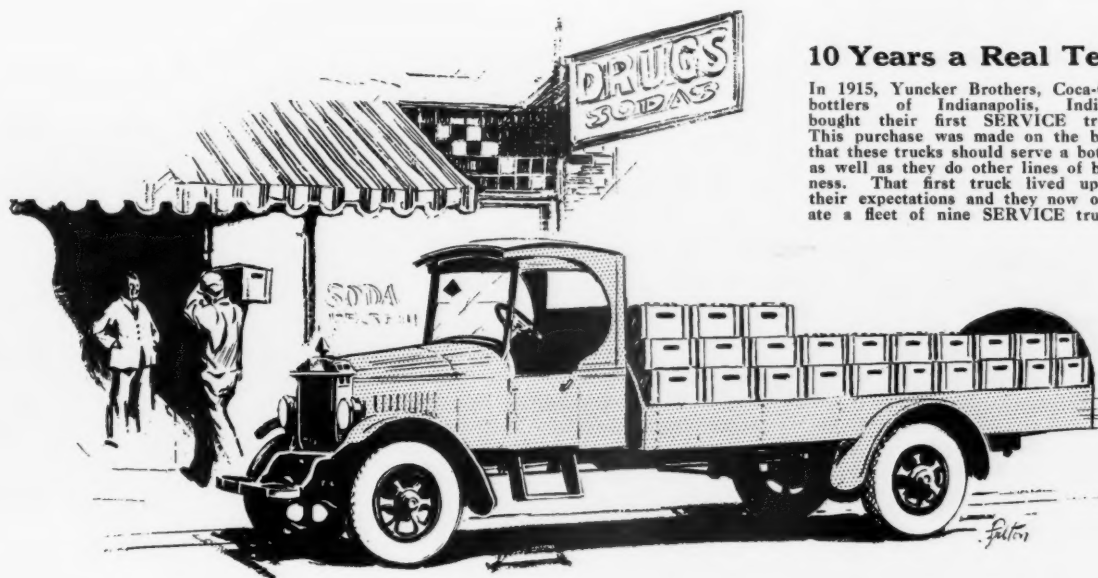
Electric Windshield Cleaner A Necessity On Trucks and Busses

A husky motor with a powerful sweep that removes heavy snow as well as rain and mist. The cost of a Stewart-Warner Electric Windshield Cleaner is a mere trifle compared to the service it renders in accident prevention.

Being electric it operates independently of the car motor, preventing rain and sleet from freezing on the glass when engine is dead.

Other Stewart-Warner Truck and Bus necessities are Shock Absorbers, Rear View Mirror, Bumpers, Speedometers, Spot Lights, Heaters and Vacuum Tank.

**Stewart-Warner
Speedometer Corporation**
Chicago • U. S. A.



10 Years a Real Test

In 1915, Yuncker Brothers, Coca-Cola bottlers of Indianapolis, Indiana, bought their first SERVICE truck. This purchase was made on the basis that these trucks should serve a bottler as well as they do other lines of business. That first truck lived up to their expectations and they now operate a fleet of nine SERVICE trucks.

Speed and Operating Economy

The bottling industry has learned that speed as well as operating economy are factors in cutting delivery costs. This, perhaps, is the fundamental reason why SERVICE trucks have been adopted by so many bottlers.

SERVICE trucks can be temporarily speeded without injury. The engine, transmission, rear system and all vital parts are protected by SERVICE Scientific Cushioning—thus prolonging the life of the entire chassis.

SERVICE trucks are husky, and built with a factor of safety that permits reasonable overloading in rush seasons. They are economical on gas, oil and tires. They need no day of rest.

For several years SERVICE has worked closely with bottlers in solving their haulage problems, and as part of this program, will, as usual, be on hand at the American Bottlers of Carbonated Beverages Convention, Kansas City, October 19th to 23rd, inclusive.

The SERVICE franchise is one of the most valuable in the industry because there are thousands of users in all lines who tell the same story of economical and efficient performance as Yuncker Brothers, and who prove it true by buying two-thirds of all SERVICE trucks built.

A letter or wire will bring full information on the SERVICE franchise. Your territory may be open.

SERVICE MOTORS, INC., WABASH, INDIANA



Service

MOTOR TRUCKS

The
First



Selden
1877

Why Owners and Drivers Like SELDENS

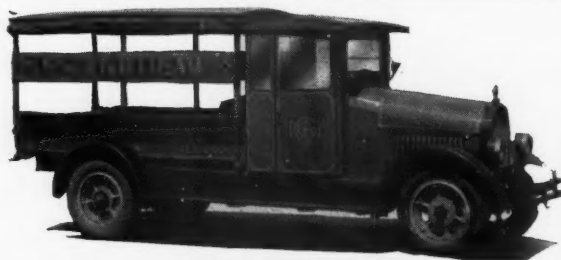
The latest Selden models embody every feature truck owners and drivers want. The two 6-cylinder speed models, the PACEMAKER and ROADMASTER are popular because of their remarkable performance. The heavy-duty models ranging from 2 to 5-7 ton capacity are ruggedly built so that they withstand hard service and are economical in operation.

*Two Special 6-cylinder Motorbus chassis
for 17 and 21 passenger street car bodies*

ASK FOR OUR DEALER PROPOSITION

SELDEN TRUCK CORPORATION

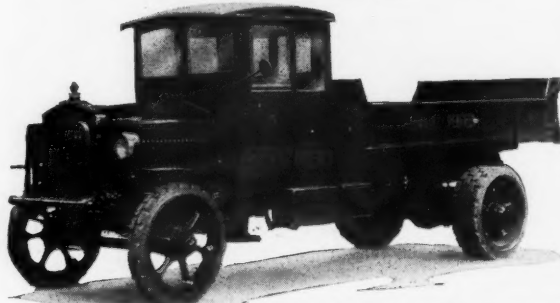
Probert Street
ROCHESTER, N. Y.



PACEMAKER, 1 1/4-Ton, 6-Cyl.



ROADMASTER, 2 1/4-Ton, 6-Cyl.



UNIT 90, 5-7 Ton, 9-Speed Transmission

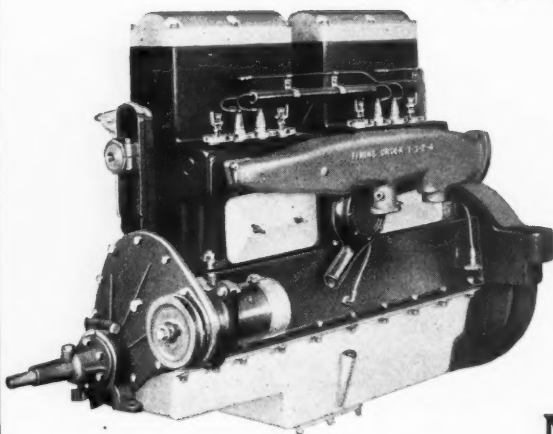
200 of

The New
ECONOMY
Model

MASTER TRUCKS

with Latest
JACKSON
Oil Engine

for Carlos Fernandez, Caguas Auto Garage
Caguas, Porto Rico



*This is the Engine That Makes
Sales Go*

The fact that MASTER Motor Trucks with Jackson Oil Engine are being delivered in quantities outside the United States, only indicates to domestic dealers their outstanding economic advantages.

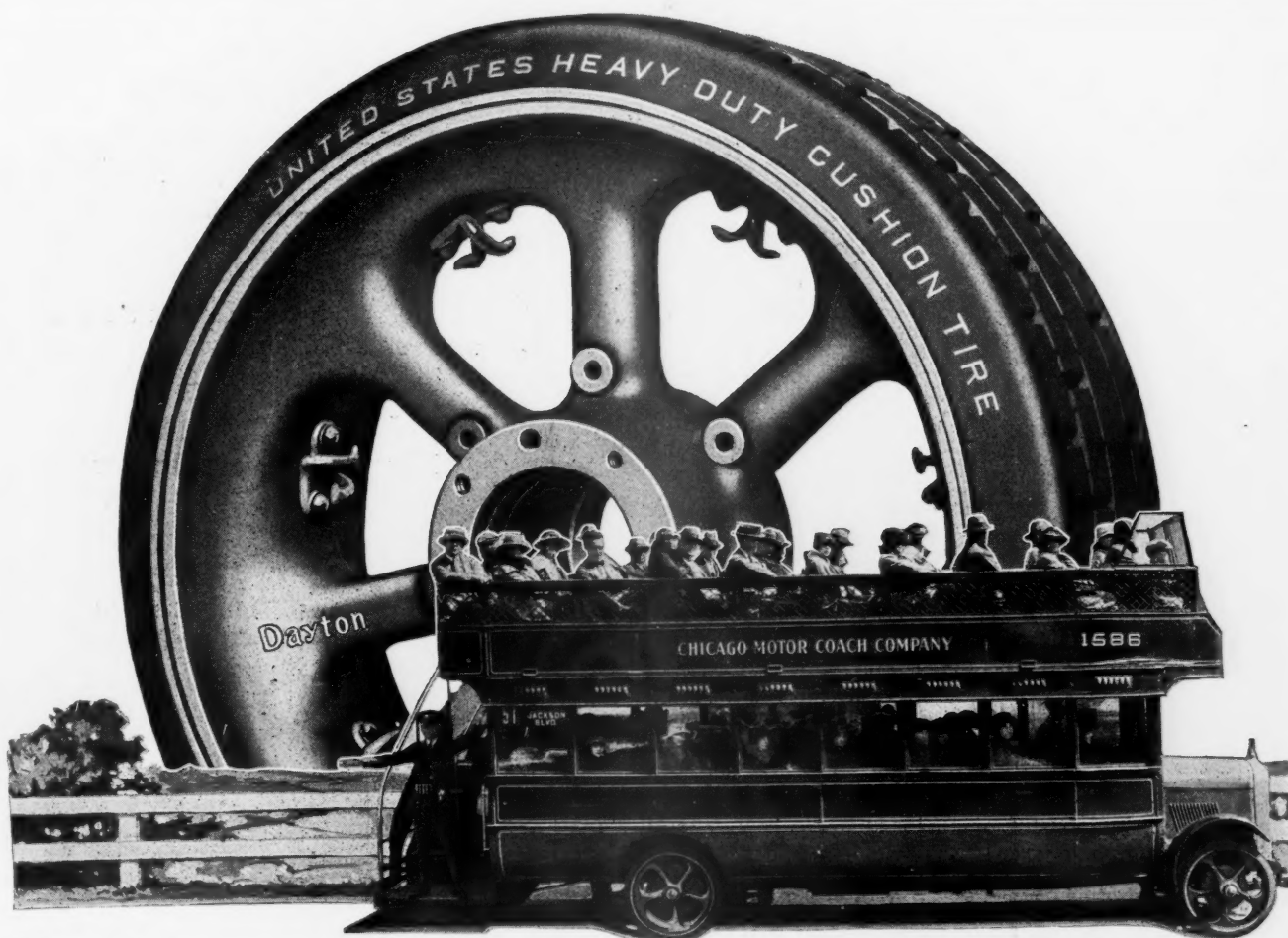
Wherever you are it is easier to sell MASTER Trucks that operate at important savings on 7c and 8c fuel. Their economies make prospects buy.

Descriptive literature will show you what other dealers are doing with MASTER sales, and how the Jackson Oil Engine works for profits. Send for information today.

Some Valuable Territory is Still Open

MASTER MOTOR TRUCK CO.
CHICAGO ILLINOIS

STRENGTH—LIGHT WEIGHT—DURABILITY



Yellow Coach *uses* DAYTONS

Yesterday, the horse car—today, the Yellow Coach. The Yellow Coach carries thousands of people every day and every night in the year in the larger cities of the country. And these precious loads must be carried smoothly, swiftly and safely.

The Dayton Steel Wheel resists sideways—helps the truck to hold the road. It is always true round and will never exert a drag on the motor or pound the life out of tires. It has the super strength to withstand terrific impacts against walls and curbs and to absorb the shocks and knocks of the road.

That's why Yellow Coach and nearly all the leading truck makers use Dayton Steel Wheels—the common sense—the natural—the Final Wheel for the motor truck. Specify them on your next order.

THE DAYTON STEEL FOUNDRY COMPANY, Dayton, Ohio

Dayton

Steel Truck Wheels

TIRE ECONOMY—ACCESSIBILITY—APPEARANCE

DIXON'S 677

For Transmissions and Differentials

Meets all requirements of a year-round lubricant.

Not affected by extremes of heat or cold, it will not stiffen and channel in cold weather and leave gears and bearings unprotected.

Dixon's 677 reduces power losses, eliminates strains and provides better and longer lubrication.

**Write for Booklet 112-G
and Dealer Proposition**

Joseph Dixon Crucible Co.

Jersey City N. J. Established 1827

FISK Transportation "Fillerless" Cords

This Great New Transportation Tire Will Bring Fisk Dealers Rich Rewards

A few weeks ago Fisk announced in the Saturday Evening Post, Collier's, Liberty, Bus and Truck papers, their new Transportation Tire made of "Fillerless" Cord Fabric.

It was explained that this "fillerless" process of construction, developed and patented by Fisk, eliminates cross threads or fillers, controls the spacing and tension of cords and uniformly surrounds the cords with rubber.

The unusual interest Bus and Truck owners have already taken in this new transportation tire will naturally make the Fisk franchise more profitable than ever.

And those dealers who are first to offer Fisk Transportation "Fillerless" Cords will reap the greatest profits. Why not write us *now* regarding the Fisk tire franchise?



Time to Retire
Get a FISK
TRADE MARK REG. U. S. PAT. OFF.

The Fisk Tire Company, Inc.

Chicopee Falls, Massachusetts

*Permanent
roads are a
good investment
—not an expense*

The High Cost of Postponing Permanent Highway Building

Poor motor roads stifle industry and agriculture, waste huge sums annually in high maintenance costs, and greatly increase gasoline, tire and repair bills.

There is not a state, not a county, not a community, that isn't paying a heavy price for having too few permanent roads.

There are still many sections of the country—even whole states—that are trying to operate twentieth century traffic over nineteenth century roads.

This is costing millions of dollars every year, and will keep on costing millions until we have well developed permanent highway systems everywhere.

Even what we often call the more progressive communities are far behind the demands of modern highway traffic with its 18,000,000 motor vehicles.

From the Atlantic to the Pacific, and from Canada to Mexico, we need more Concrete roads—the roads for twentieth century traffic.

Your highway officials want to be of the greatest possible service to you. Get behind them with ways and means that will provide more Concrete roads and streets. Such an investment will pay you big dividends year after year.

PORTLAND CEMENT ASSOCIATION

*A National Organization to Improve
and Extend the Uses of Concrete*

Atlanta	Dallas	Kansas City	New York	Salt Lake City
Birmingham	Denver	Los Angeles	Oklahoma City	San Francisco
Boston	Des Moines	Milwaukee	Parkersburg	Seattle
Charlotte, N. C.	Detroit	Minneapolis	Philadelphia	St. Louis
Chicago	Indianapolis	Nashville	Pittsburgh	Vancouver, B. C.
Columbus	Jacksonville	New Orleans	Portland, Ore.	Washington, D. C.

Thousands of Dollars Saved on Truck Operating Costs

That's what the reliable, accurate Ohmer mileage meters are doing for successful truck owners everywhere.

You, too, can save money—hundreds of dollars—by equipping your trucks with Ohmer mileage recording instruments. They give you just the information you need—facts that will tell you, for example:

- mileage costs for each of your trucks
- which trucks are making or losing money
- what length hauls pay you the most profit
- which drivers are the most efficient
- how much time each truck loses per day.



OHMER Odometer

*Transmission drive.
Unusually large figures.
No split figures. May
be installed on dash,
seat support, frame or
inbuilt in floor.*



OHMER Hub Odometer

*Designed for the hub
of all makes of cars
and trucks. Figures
always right side up.
Sealed by new method
that eliminates set
screws and wires*

LOOK FOR THIS SIGN



For All Kinds of Truck Service

At a surprisingly low price we offer you two tried, tested and proved mileage recorders—the Ohmer Hub Odometer, and the Ohmer Odometer. Both are specially designed and built for hard, rough, gruelling service. Both are simple in construction, fool-proof and trouble-free. Both are infallibly accurate under all conditions. Both are easily and quickly installed and will last a lifetime. Both are unequaled for service, economy and reliability on light trucks and heavy-duty trucks, Driv-Ur-Self cars and busses.

Let us send you complete details about these instruments. Tell us the nature of your business and the number of trucks in your fleet, and we'll suggest the type of Ohmer mileage meter best adapted to your needs.

Get This FREE Book

Together with full information about these mileage meters and what they will save you. We will also send you, FREE, our book entitled, "Horse Sense Applied to Automobile and Truck Operation." This is without doubt the most complete and thorough book ever written on this subject. It should be in the hands of every truck owner, whether he operates a single truck or a large fleet. Send for your copy.

OHMER

FARE REGISTER CO., Dayton, Ohio

— Your Cost-Saving Coupon —

Ohmer Fare Register Co.
Dept. B-1, Dayton, Ohio

Send complete information on your Odometers together with free book.

Name

Address

No. of Trucks Kind of Trucks

HIMICO TRANSMISSIONS POWER PLANTS

The Best Way to Help a Ford

If all loads were a ton, and if all roads were even reasonably hard and level, no Ford would ever need help.

But Ford owners do pile on the cargo. And their routes lead up-hill and down, over all kinds of highways.

So you have Himico—the one and only device commercially built that transforms a Ford into an honest-to-goodness sliding gear car or truck.

When Himico goes in, the Ford planetary transmission comes out—bands, clutch and all. Instead, you have a super-Ford—a Ford equipped and ready for real heavy duty.

Owners everywhere declare the Himico "The best way in the world to help a Ford." Dealers are equipping whole fleets.

Get some of this profitable business for yourself. Ask for our dealer's proposition.

PRICES

HIMICO TRANSMISSION replaces Ford planetary set, sliding gears, three forward speeds and reverse. Complete with replacement crank case, \$137.

HIMICO POWER PLANT replaces a Ford engine transmission. Includes Transmission and Engine of Original Ford parts to which we have added High Velocity head and Hot-Spot Manifold. With new Engine, \$209. With remanufactured Engine, \$184 (and your old block). Emergency Fourth Speed, 42 to 1 (especially for trucks), \$15. Power Take-off, \$18.

HINKLEY MOTORS, Inc.

(Builders of the Famous
Hinkley Heavy-Duty
Automotive Engines)

Box J-839 Detroit, Michigan



USERS OF SPICER PROPELLER SHAFTS (One of a series)



FEW motor vehicles place so severe a strain on their propeller shafts as do the huge, double-deck

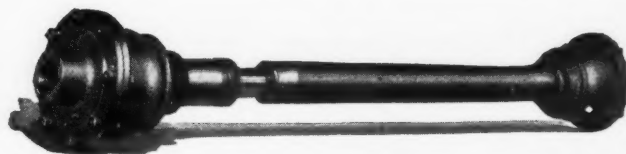
Fifth Avenue Buses

of New York City. Stopping and starting at every corner, propelling heavy, swaying vehicles that alternately crawl and spurt through the Avenue jam, running with clock-like regularity—here indeed is a service that requires the utmost in propeller shaft dependability.

That is why

Spicer Propeller Shafts

are used in Fifth Avenue Buses



Associated Spicer Companies

Spicer Manufacturing Corporation, South Plainfield, N. J.
Parish Manufacturing Corporation, Reading, Pa.
Salisbury Axle Company, Jamestown, N. Y.



A New Jack

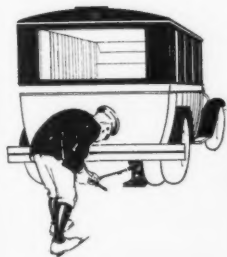
for Buses with low overhanging bodies

The modern bus must have a jack with a very low starting height in order to go under the axle when a tire is deflated. The handle of the jack must operate with a rotary motion (in order to avoid the low bus body) and be long enough so that the jack can be pushed into place and operated from behind the bus. Notice how the following features of the No. 18 RELIABLE meet these requirements.

- 1st. Low starting height, 7 in.
- 2nd. Lift of 9 in. Total height, 16 in.
- 3rd. Long folding handle equipped with semi-universal joint which gives all the advantages of a universal joint but is rigid enough to place the jack in position.

4th. Both screws work together, twice as fast as ordinary jacks.

Specifications No. 18. Weight, 19 lbs. Lift, 5 tons. Height of Jack, 7" to 16". Screw Diam.: Outer, 1 1/2"; Inner, 1 1/4".



Elite Manufacturing Company

(Dept. C. C.-10)

ASHLAND, OHIO

RELIABLE JACKS



A New Jack

for heavy trucks with pneumatic tires

The axles on such trucks come close to the ground when a tire is flat, thus necessitating the use of a jack with a low starting height. The 10 inch lift of the No. 12 RELIABLE insures ample clearance for changing a tire.

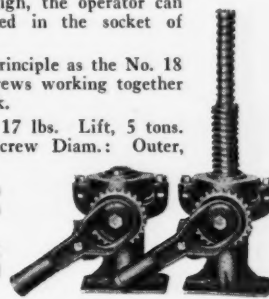
Since the bodies of trucks are high, the operator can insert any length handle desired in the socket of this jack.

This jack operates on the same principle as the No. 18 Bus Jack. The double-acting screws working together result in an unusually rapid jack.

Specifications No. 12. Weight, 17 lbs. Lift, 5 tons. Height of Jack, 8" to 18". Screw Diam.: Outer, 1 1/2"; Inner, 1 1/4".

We will be glad to furnish prices and additional information upon request.

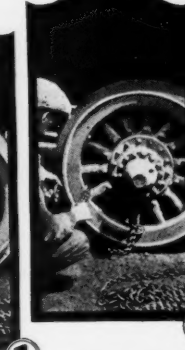
There is a sturdy RELIABLE Jack for every size car, bus and truck.



How to put them on

Easy isn't it
2 minutes

On Off



① Dealers Write

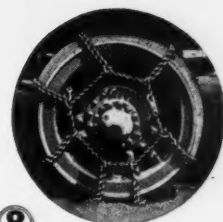
NACESKID SERVICE CHAIN CO.

TRENTON, N. J.

NACESKID Service Chain

Naceskid Distributors:

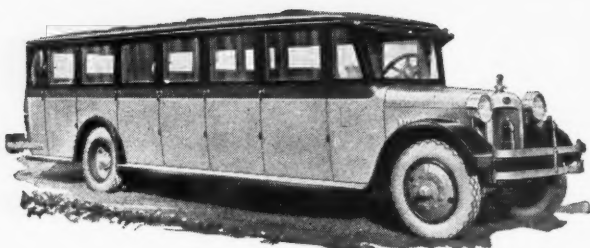
Selfert & Balme, Newark, N. J.
Goodrich Tire Service Co.,
Boston, Mass.
Serber Rubber Co.,
New York City
Foster, Miller & Blerly,
Philadelphia, Pa.
Elmer Davies, Rochester, N. Y.
Becher Truck Tire Service Co.,
Buffalo, N. Y.
Warren Tire Stores Co.,
Portland, Me.
Commercial Tire Corp.,
Baltimore, Md.
Petty Motor Sales Corp.,
Trenton, N. J.
The Bittenbender Co.,
Scranton, Pa.
C. Y. Schelly & Bro.,
Allentown, Pa.
Harry Christensen & Son,
Reading, Pa.



⑧

Tim Noonan, Wilmington, Del.
Sattel Auto Supply Co.,
York, Pa.
Dauphin Tire Service Co.,
Harrisburg, Pa.

Territory Still Open for
1925-1926

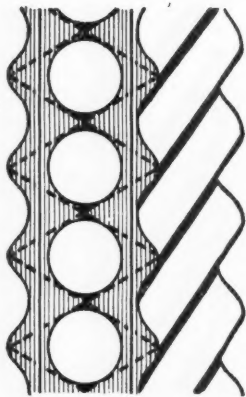


This Ruggles coach demands beauty of line and finish as well as efficient cooling. Perfex Radiators are increasing as standard motor bus equipment

Perfex Cross-Braced Radiators for Busses

The Perfex Bronze-Core Radiator, with its cross-braced construction, is no mean factor in keeping busses on the road—the only place they can make any money.

The cross-brace principle is illustrated below, and it is only one of many exclusive features which make Perfex, the radiator for motor busses. Scientifically designed along sound engineering lines, built in a thoroughly modern plant, and backed up by fourteen years of successful experience, Perfex Radiators merit the thorough investigation of every bus owner and maker.



The heavy broken lines indicate the strong, cross-braced reinforcement provided by the hundreds of soldered points in Perfex exclusive construction.

The Cross-Brace Principle in Perfex

Any twisting or wracking of the chassis exerts a force that is met by the greatest strength of Perfex Bronze-Core Radiators. The illustration at the left shows a diagrammatic view of two Perfex Water Channels, with the corrugated walls. The "points" or "lips" formed by the curved walls are soldered together at each point front and back. These soldered points form a series of reinforcing bars that provide cross-bracing in every direction. Each square inch of surface is braced in this manner, giving the Perfex Core such strength that 74 manufacturers have standardized on it.

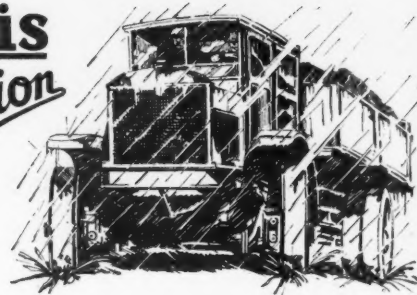
Anyone interested in efficient cooling of hard worked motors is invited to send for full information about Perfex Radiators and our service of engineering and supply.

RACINE RADIATOR COMPANY, Racine, Wisconsin

PERFEX
THE PERFECT RADIATOR

Now is the time to

Win **His**
Cooperation



Giving truck drivers the opportunity to knock your line eventually ruins its reputation in an entire territory. Pleasing them wins their friendship and enthusiastic support.

And it can best be won by keeping them warm and dry in cold winter weather. Equip your trucks with America's leading Cab—the Rain or Shine Truck Cab—and watch the sales chart climb.

Intimate details are well worth reading. Tell us where you want yours sent.

GENERAL WOODWORK CORPORATION
CINCINNATI, OHIO
Manufacturers of

**RAIN OR SHINE
TRUCK CABS**

Hand This to the Next Customer You See

Let Me Suggest—

The most economical cost system I know of. Other motor fleet owners and operators have tried it at my suggestion, and say it is fine.

The Motor Transport Standard Cost System is a simple, convenient and inexpensive method of keeping close tabs on your trucks and drivers.

It costs only \$9.50 for 500 Driver's Cards, 60 Monthly Summary Sheets, 1 Complete Instruction Book, 1 Binder.

I don't get a cent out of it, but if it makes more money for you, that should mean better business for me. I'm glad to pass along the idea.

The address is:

**CHILTON CLASS JOURNAL
COMPANY**

Chestnut and 56th Sts.

Philadelphia

Your Dealer



For Reductions in Truck "Price"

The cost of your truck is the cost per ton at which it delivers goods for the owner.

The real price is written from mileage records: Checking up the cost-per-mile and tons delivered per mile traveled. It's arrived at with the

Veeder

HUB ODOMETER

The owner himself can fix the cost of many items of operation and maintenance. Careful driving puts it *low*.

And the owner sees that careful driving is indicated on his "Veeder." For he doesn't waste money with his eyes open.

REGULAR MODEL (list) . . . \$20.00

FORD TRUCK MODEL . . . 15.00

Informative circular on request

The Veeder Mfg. Co.
10 Sargeant Street Hartford, Conn.

Sales and Service Stations in

Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colo.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Cal.
Montreal, Quebec

New Orleans, La.
New York, N. Y.
Philadelphia, Pa.
Pittsburgh, Pa.
Providence, R. I.
Rochester, N. Y.
St. Louis, Mo.
St. Paul, Minn.
San Francisco, Cal.
Syracuse, N. Y.
Tacoma, Wash.
Toronto, Ontario
Washington, D. C.
—and other cities



The
other end
of the speed
rainbow!

It may seem like pretty good business—squeezing an extra trip per day by clipping the schedule. Certainly you'll collect more fares, and you may even fool yourself into believing you are making more profit. *But what of the buses?*

What of the wear and tear, repairs and replacements? You know every mile an hour above the safety speed limit doubles and redoubles the sledge hammer blows of road shock, and the tearing, racking force of vibration. No engine and no bus chassis, no matter how well built, can withstand such treatment long. And you soon see your imaginary profits fading away because of rapid depreciation and excessive repair bills.

Pierce Governors (by automatically regulating the engine speed) protect your investment, cut down running expenses and increase bus life. That's why more than 150 manufacturers of motors, buses, trucks and other automotive vehicles have adopted Pierce Governors as standard equipment.

You'll be interested in our booklet that tells the story in facts and figures. Ask for No. 34

PIERCE
Governors

Manufactured by

The Pierce Governor Co.

"World's Largest Governor Builders"

Anderson, Indiana

What's All the Shootin' Fer?



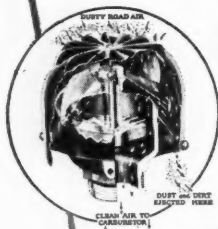
For 5 Years

This Company has been emphasizing the necessity of equipping engines with

AIR CLEANERS

and sticking to the job of making

THE BEST ONE



The **UNITED AIR CLEANER**

Adopted by More Than 100 Manufacturers
Made for All Motors Write for Prices

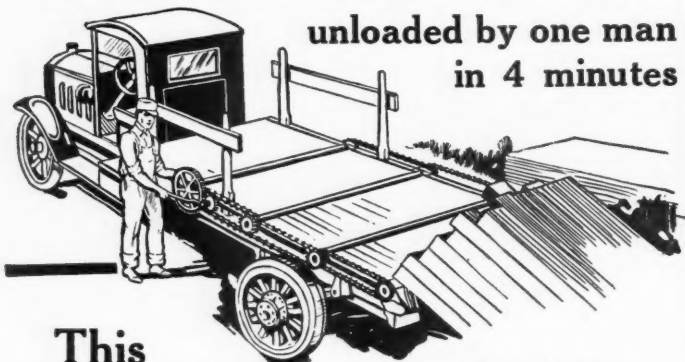
United Manufacturing & Distributing Co.

9704 Cottage Grove Ave.

Chicago, Ill.

5000 feet of it!

unloaded by one man
in 4 minutes



This

isn't a record—

—it's everyday performance with a McGarry Lumber Loader and Unloader.

Won't figures like these cinch the sale of McGarrys to lumber dealers in your locality? And we'll make each sale pay you big.

A McGarry Loader will fit any truck or trailer. Its four rollers are connected by cotter pin chains (5000 lb. test) and turn together when operated by a safety crank handle with a 3 to 1 gear. A 6-ton load moves easily!

There is exclusive territory still open. Write now for details

The John A. McGarry Company

2136-46 S. Ashland Avenue
Chicago, Illinois

MCGARRY
PATENTED
LUMBER LOADER & UNLOADER



"OLD TIMERS"

Don't miss Splitdorf at the radio shows!

Splitdorf merchandising plans are of vital interest to merchants who desire to build a permanent business.



H AND-HOIST dump bodies for every make of truck up to 2½ ton capacity. We also manufacture special steel bodies of every description for ice and ice cream manufacturers, coal dealers, contractors, general haulers and municipalities. We solicit inquiries from authorized truck dealers.

THE GALION ALLSTEEL BODY COMPANY

Galion

Ohio

GALION ALLSTEEL BODIES

TRIBLOC CHAIN HOIST

LOAD CHAIN
STRETCHED RIGID



—it did not break

Overloads are not good for *any* hoist—but here is what happened to a Tribloc Chain Hoist in the shop of a user. An overload stretched the load chain *rigid*—as unyielding as a small steel rod—the links having locked into each other without breaking.

A new load chain was inserted and the Tribloc Chain Hoist again placed in active operation.

The *strength and safety* of Ford Tribloc Chain Hoists for *any* hoisting job is the result of using only approved and tested materials—and basing the design of each part on sound engineering principles, allowing a $3\frac{1}{2}$ to 1 factor of safety in the weakest part.

CAPACITIES UP TO 40,000 LBS.
SEND FOR CATALOG 6-B

FORD CHAIN BLOCK COMPANY
Second and Diamond Sts., Philadelphia, Pa.

Ford Chain Hoists are made in many sizes and types. The $\frac{1}{4}$ ton to 2 ton types is shown above. The Screw type is a light weight, powerful hoist preferred for portable use. The Differential Type is recommended for use where light loads are handled occasionally.

(2280-D)



Guaranteed Profits

As the result of 16 years' experience in the building of fine, standardized motor trucks, we are now able to offer you a sales franchise that guarantees your making money.

Our new franchise embodies every element of a successful business—

1. Rich territory
2. Liberal discounts
3. Fair sales policies and helps
4. We never ask you to stock trucks or parts, as these can be supplied from nation-wide parts depots

And, above all, we offer you a fine product to sell.

We all know that the next five years will see big strides in the motor truck field. Now is the time to form a connection with a substantial company.

United States Motor Truck Co.

Established
1909

Capitalization
\$1,750,000

A—Got started late from garage.
B—Nothing to do till 9.30.
C—1 hour and 20 minutes "static."
D—Lunch, and setting the world war.
E—Standing, at \$3 per hour.
F—Ditto.
G—Reports at 5.30, earns overtime.
H—Truck used at night. Why?



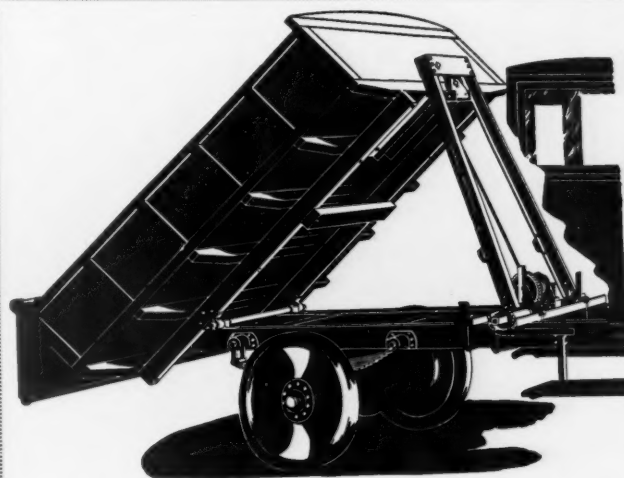
It Helps You Sell Trucks

Sell your customer *truck service*, as well as a truck. **SERVICE** for a truck is, in the last analysis, full running time. Idle time isn't due mostly to accidents or repairs. A big per cent of it can be prevented.

No matter what the cause of unproductive time, there is an "eagle-eyed" simple little truck device you can fasten to the truck that records on a daily chart every minute *the truck isn't moving*.

Its name is **THE SERVICE RECORDER**. It prevents abuse and misuse. It will save your customer money every day. And—it will help you *make more sales* through satisfied users. Write for **BOOKLET K**.

THE SERVICE RECORDER CO. Cleveland, Ohio



ROCK HAND HOIST

A well designed and carefully built hand hoist for motor truck dump bodies.

Cut gears are used on the winch.

Can be mounted on any width of chassis without change.

TYPE G for bodies up to $1\frac{1}{2}$ ton capacity, occupies 5" to $6\frac{1}{2}$ " space. Price without body hinge....\$58.00

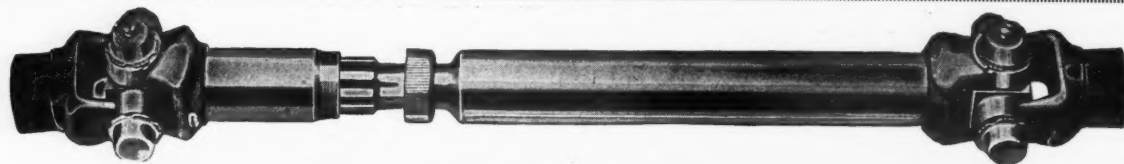
With body hinge\$65.00

TYPE H for bodies up to $3\frac{1}{2}$ ton capacity, occupies 9" space. Price without body hinge.....\$75.00

With body hinge\$85.00

PRICES F. O. B. WATERLOO, N. Y.
Gov't tax to be added

ROCK MANUFACTURING CO., Waterloo, N. Y.



A Drive Shaft That Will Take Punishment

Their ability to "stand the gaff" is one of the qualities which has won Blood-Brothers Drive Shaft Assemblies a place on over thirty-five makes of trucks.

BLOOD-BROTHERS MACHINE COMPANY
Pioneer Makers of Universal Joints and Drive Shaft Assemblies
ALLEGAN MICHIGAN

ACME

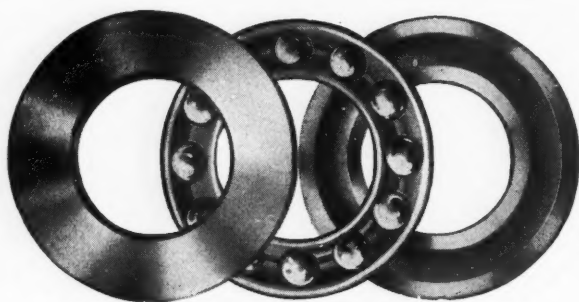
Models
for
Every
Industrial
Load

Satisfied Acme owners constantly confirm Acme's worth
and dependability

ACME MOTOR TRUCK CO.
629 Mitchell Street
Cadillac Michigan



*Acme Flyer
for
Speed Work*



WESTERN SALES OFFICE
1012 Ford Building
DETROIT, MICH.

We offer the services of our engineers in assisting designers on layouts involving the use of Thrust Ball Bearings in any type of machine where Thrust Ball Bearings can be used. Our broad experience covers many years. We are ready to serve you at any time.

The Bearings Company of America
Lancaster, Pennsylvania

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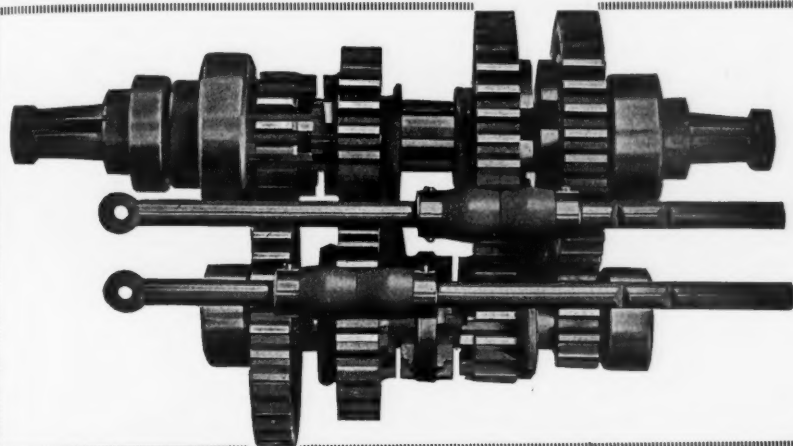
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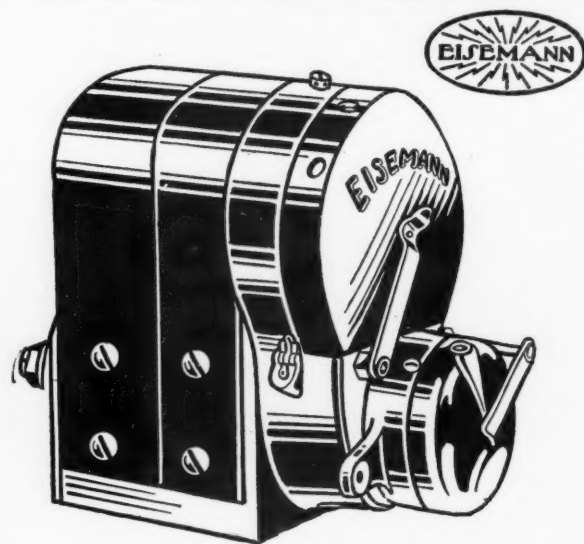
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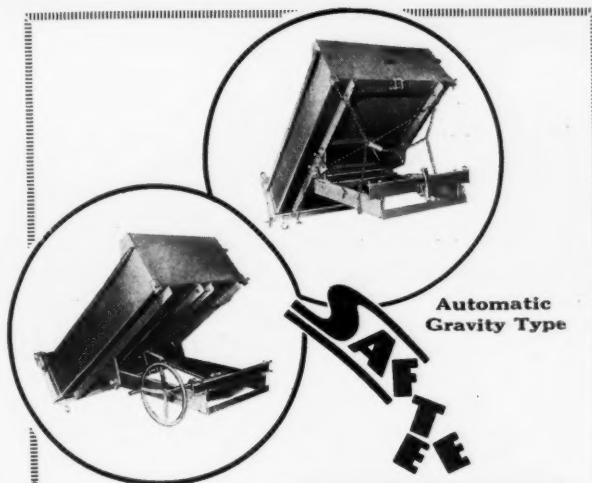
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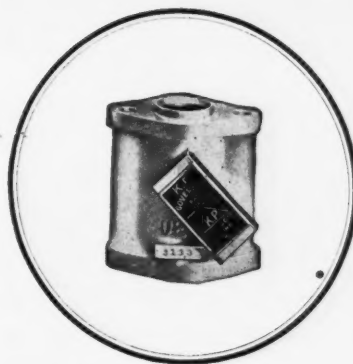
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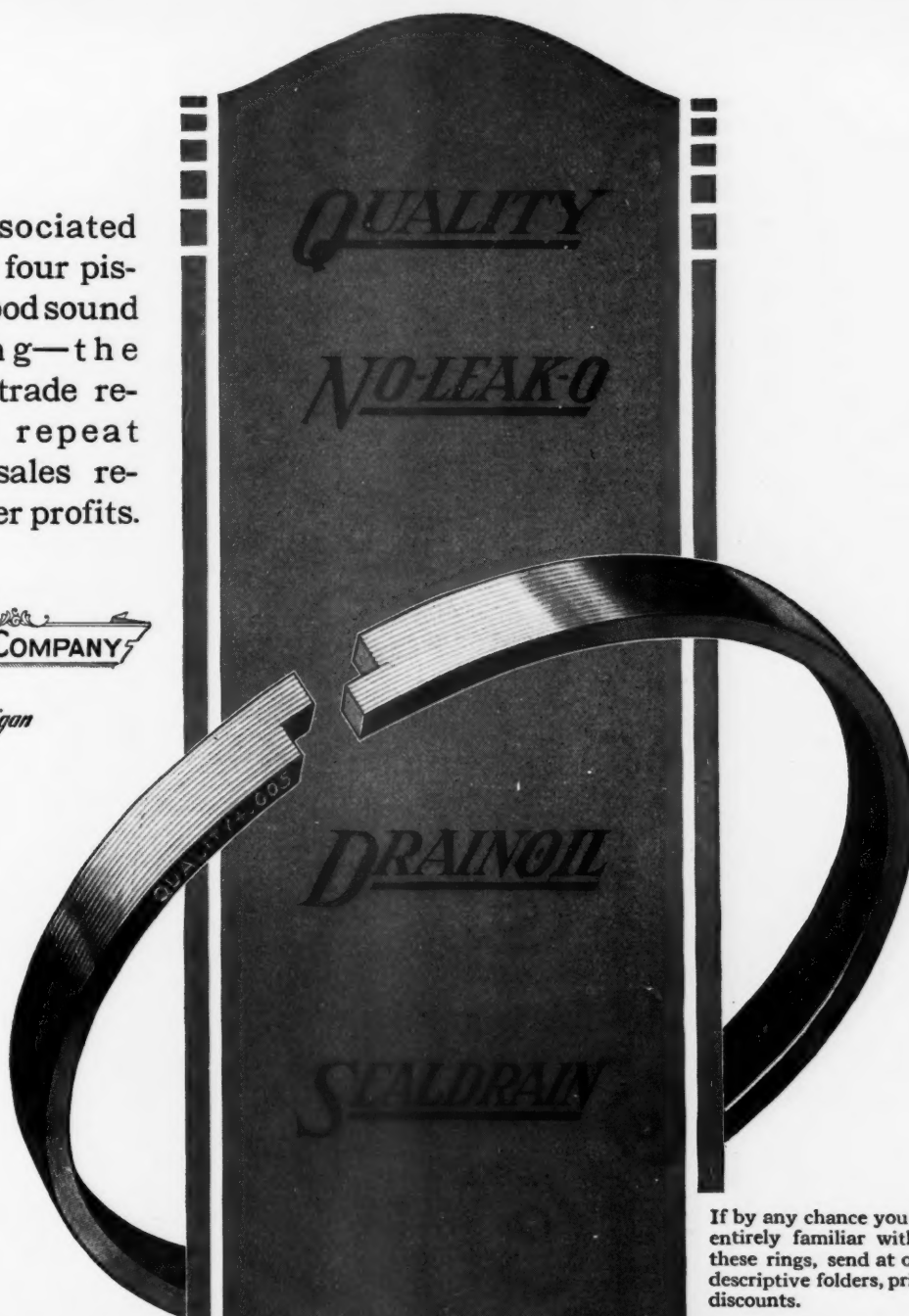
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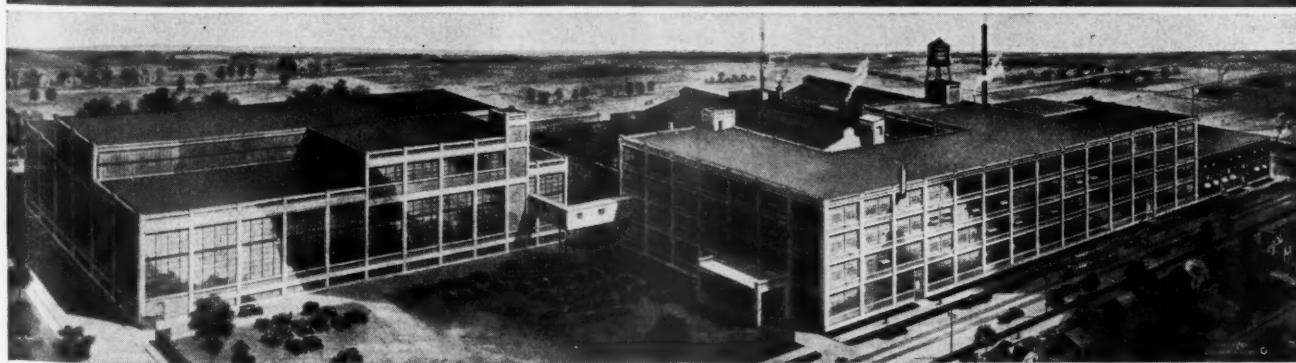
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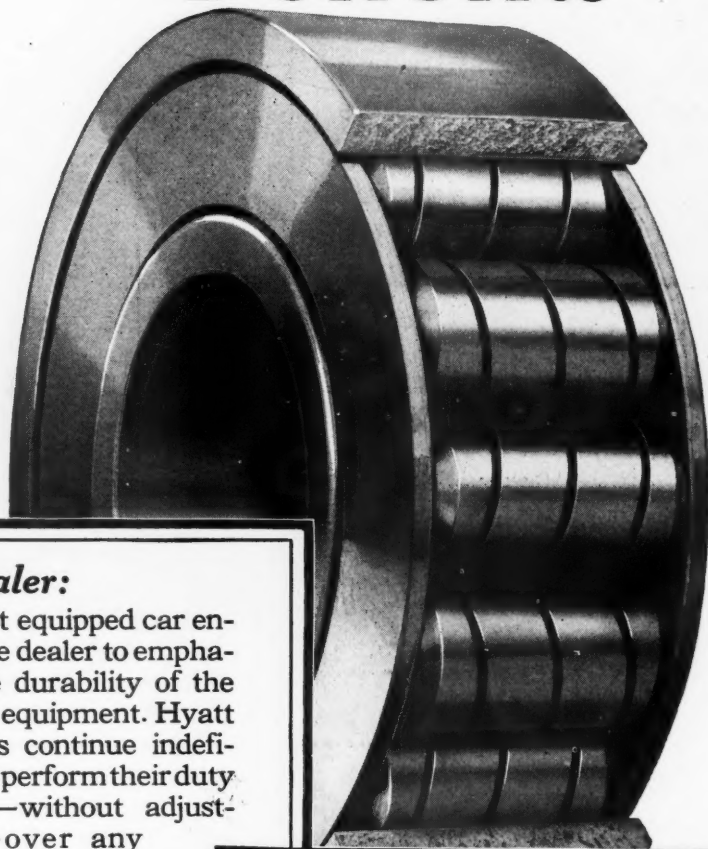
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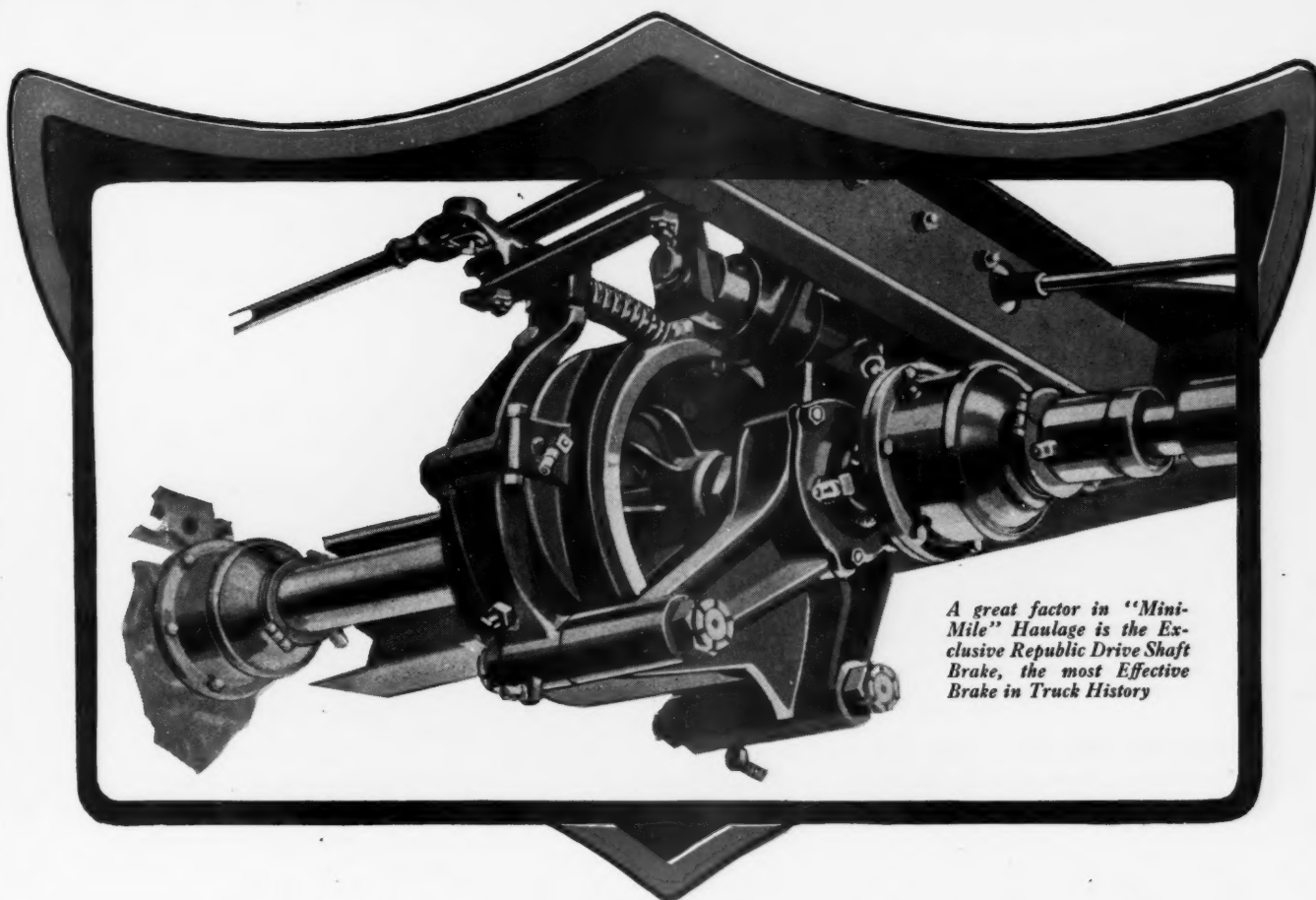
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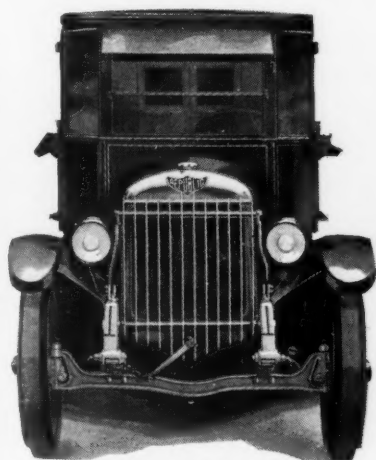
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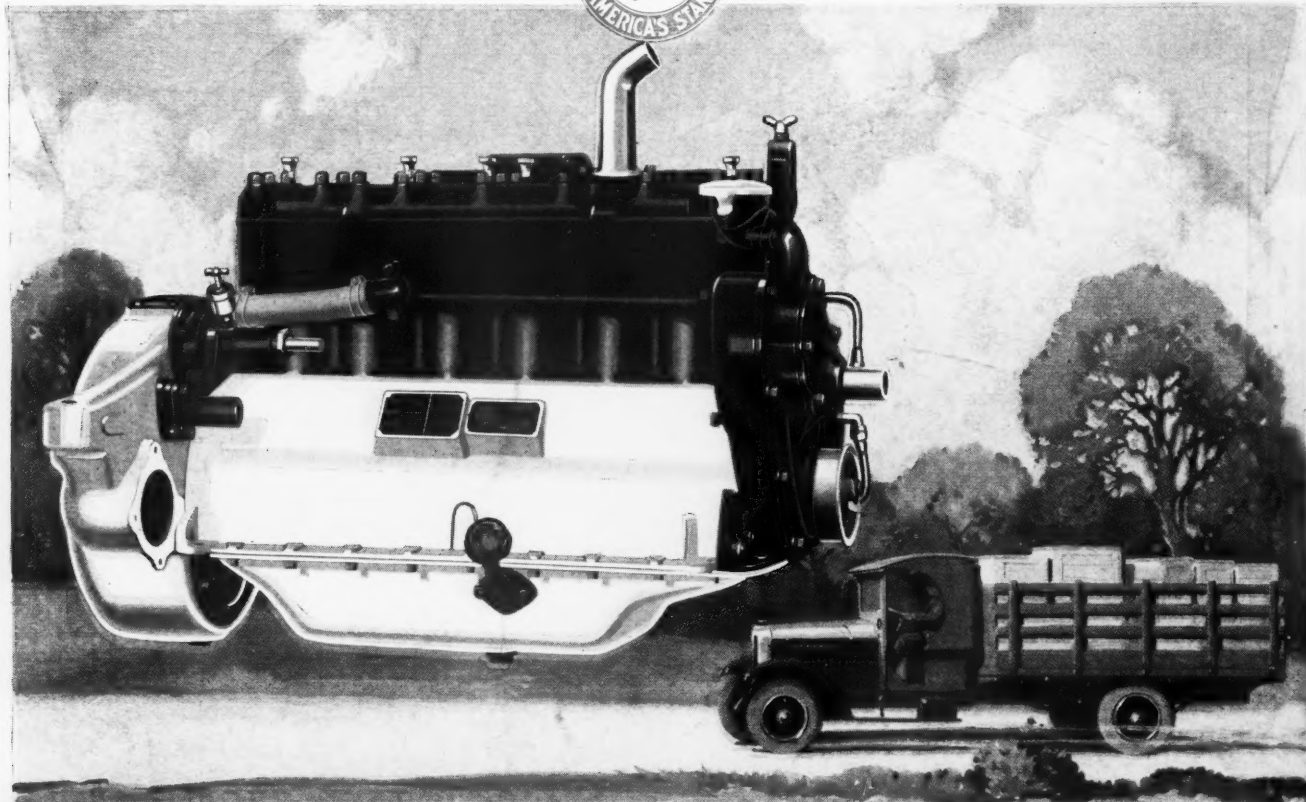
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